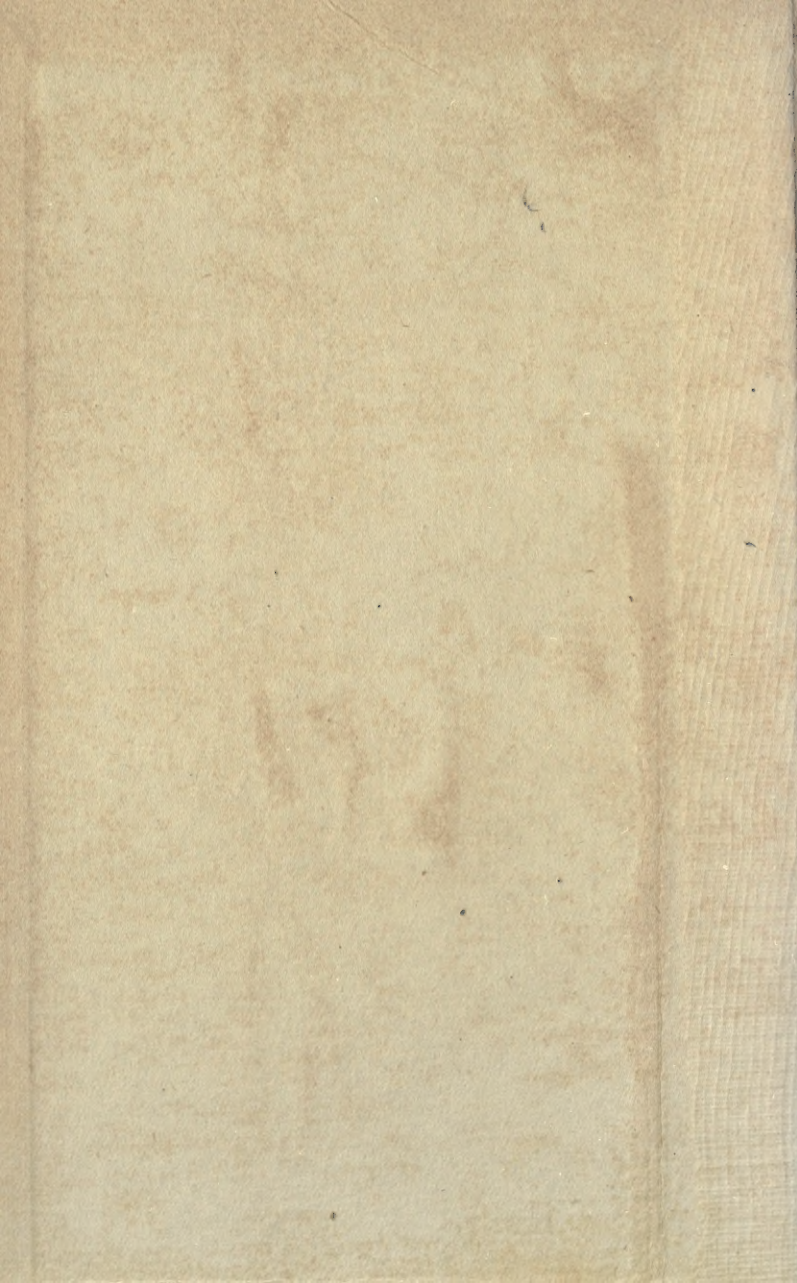


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THE POWER OF MUSIC AND THE  
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# THE POWER OF MUSIC AND THE HEALING ART

BY

GUY CADOGAN ROTHERY

LONDON

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## PREFACE

THE first sections of this book appeared in *Health*, under the Editorship of Dr. Andrew Wilson; the section on Vocal Music in *The Globe*, and that on Voice Training in *The Medical Press*. As a result of much correspondence and enquiries for the papers this last named section was included in a series of essays on sanitary and social questions printed in 1897. The others, after revision, were re-issued in a musical periodical. They have now undergone expansion and further revision for book form.

G. C. R.

“ From harmony, from heavenly harmony  
This universal frame began :  
From harmony to harmony  
Through all the compass of the notes it ran,  
The diapason closing full in Man.”

DRYDEN.

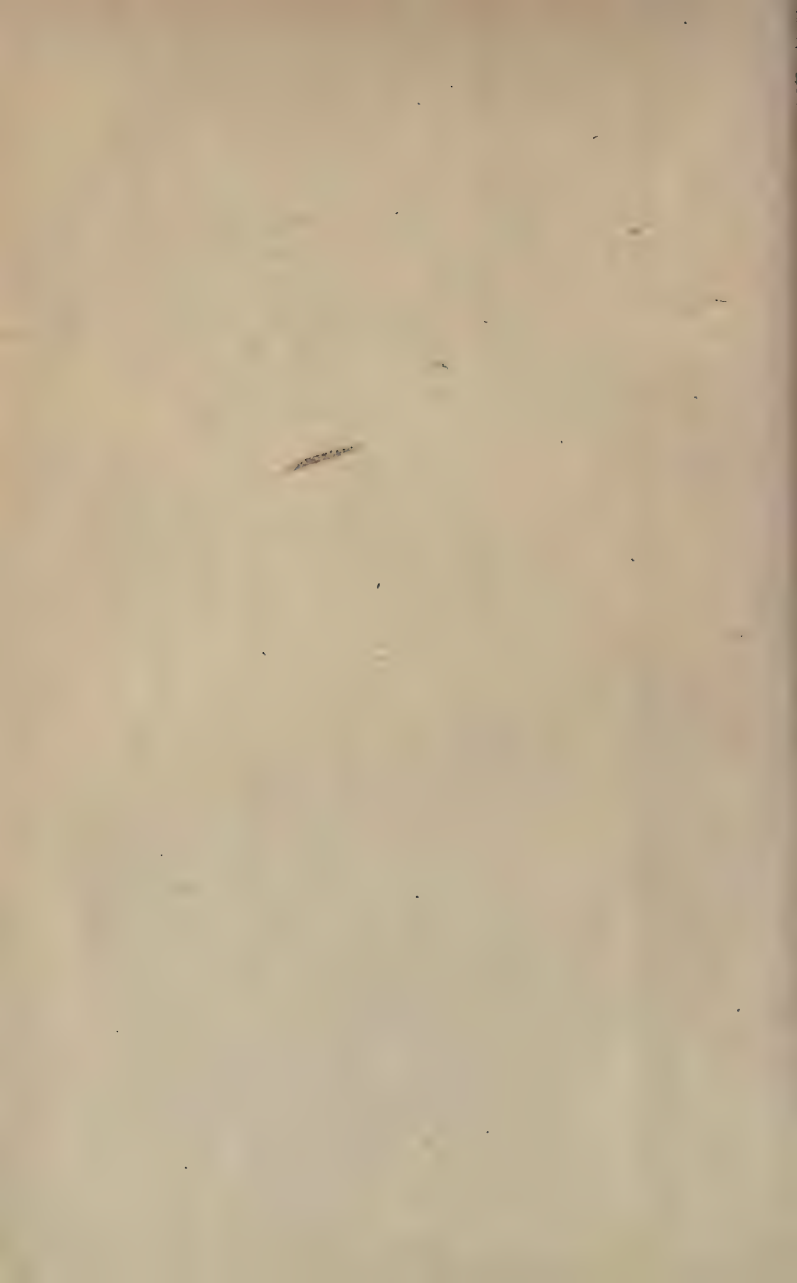
“ The man that hath no music in himself,  
Nor is not mov'd with concord of sweet sounds,  
Is fit for treason, stratagems, and spoils ;  
The motions of his spirits are dull as night,  
And his affections dark as Erebus :  
Let no such man be trusted.”

SHAKESPEARE.

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## INTRODUCTION

To ancient philosophers so apparent was the influence of music on mind and body, that education without its assistance seemed inconceivable. Certainly it has long been acknowledged that the teaching of music forms a part of a liberal education, not only as a mere accomplishment, but as tending to widen the sphere of the student's ideas and pleasures. Undoubtedly music has an educational value in this latter sense. Music is a natural instinct with man; at least rhythmic chanting is. Primitive music is an unconscious manifestation of the mathematical faculty of human beings, for it is based on variations of time and measurement. All primitive people have made use of music in order to attain certain desired ends, concentration, co-operation. In preparing for war, or any arduous task, savages dance and sing.

So we find with children; most of their games, requiring co-operation and sustained

effort, are associated with song, some simple rhythmic chant. Sailors and soldiers find a considerable assistance in song and music when hard at work and on the march. The reason is merely that music is the audible symbol of time and pitch measurement, a co-ordinating force. It is audible mathematics. Whether we consciously or unconsciously set our mental faculties to analyse the arithmetical value of a piece of music or a plaintive ballad, the exercise is decidedly healthful to the brain, as it is a method of training the mind to appreciate mathematical values by training the ear.

Those of our readers who have studied the science of psychology will understand that there is nothing far-fetched in such a claim as this. Then, apart from strengthening the analytical and mathematical faculties, music develops the taste for what is beautiful, opening out a vast field for intellectual enjoyment, while singing not only confers these advantages, but, if properly supervised, greatly assists physical development, by expanding the chest and strengthening the lungs and throat. Indeed, the mere mechanical action is of benefit to the stomach, and partly owing to the extra movement of



the organs of digestion, and to the larger amount of oxygen inhaled, children who habitually sing are generally strong and healthy.

“Mind and Matter” in mankind are acted upon by music through the nervous centres, a fact recognised more or less dimly quite early. Hence the claims put forward as to its curative value, a subject upon which much that is interesting has been written.

Some of these reasons for advocating the wider recognition of music as an educative agent which are also set forth to support arguments in favour of its healing powers, may appear to destroy the poetry of the subject, but a closer consideration will show that it is far otherwise, as it teaches the all-pervading natural laws of proportion and order.

The innate idea of harmony is one of the most striking and all-pervading phenomena of psychology. As we have said, music may be regarded as mathematics translated into sounds. Sully pointed out: “While hearing gives us comparatively little knowledge of space, it yields a very exact perception of time relations. By this is meant the approximately direct apprehension of the

order of succession, and of the rapidity of succession or duration of sounds." This "always involves at least a rudimentary process of retrospection and representation of impressions which are already past."\*

We may truly say that both music and mathematics are different modes of expressing the harmonic laws which underlie all natural phenomena. The appreciation of these laws of harmonies of proportion is innate to all living creatures, for the lower animals also show undoubted appreciation of more or less elaborate harmonies, shapes and numbers (witness the notes of birds and insects, the honeycomb of bees, etc.)

As regards this tendency in man, the point was curiously brought out in a paper read by Professor Sir William Ramsay, F.R.S., before the Society for Psychical Research, on "Experiments with Anæsthetics." The Professor mentioned that when experimenting with chloroform and ether, before he became unconscious, his mind was filled with an idea of the immense importance of harmony. He heard two harmonic musical notes which seemed to take complete possession of him; then his eyes traced out the

\* "The Human Mind," 1892.

harmonic proportion of straight lines, bars across the window, bars of the fire-grate, or the four lines of a table ; finally he saw an anatomical figure dancing round him with rhythmic grace. In every instance the mathematical exactness of sound, of pictorial, or of time measurement, seemed to be the absorbing question during the early stages, after which the dizzy brain became occupied with metaphysical flights.

We may also mention the commonly observed fact that, when in a drowsy state, and sometimes in dreams, many people either take to counting, to witnessing mazy dances, or trooping by of figures, animals, etc., or to an endless kaleidoscopic view of geometrical patterns, while to some favoured individuals invisible harps measure time with musical harmonies.



## CHAPTER I

### MUSICAL THEORIES

“ Music ! oh ! how faint, how weak,  
Language fades before thy spell !  
Why should feeling ever speak  
When thou cans't breath her soul so well ? ”  
MOORE.

“ There's music in the sighing of a reed ;  
There's music in the gushing of a rill,  
There's music in all things, if men had ears to  
hear.”—BYRON.

MUSIC is a universal note of expression, appealing to the common emotional nature of mankind. Moreover, it persists throughout nature ; we have it in the rhythmic ebb and flow of waters, in the hum of myriads of insects, in the sighing of zephyr-tossed trees.\*

All this was early recognised, and although ancient music was only developed to the merest rudimentary forms, yet Plato had so

\* “ Cette force magnétique de l'harmonie est répandue dans tous les corps de la nature. Corps inertes et corps animés, corps bruts à peine ébauchés ou parfaits et complets, sont soumis à son empire. La grève retentit sous le choc de la vague ; le rocher battu par la tempête rend des sons effrayants, et la forêt agitée par le vent fait entendre des gémissements terribles.”  
—H. Chomet, docteur en médecine.

high an opinion of it that he regarded the virtuous man to be he whose whole life was in harmony with music. Pythagoras declared music to be so incalculably above the senses, that it required the loftiest of intellects to comprehend it. He viewed music as almost the supreme expression of life and government throughout Nature and her works. Aristoxenes would have had it introduced at every meal, inasmuch, said he, that its sublime symmetry restrained mental and physical excess. Then, again, what have not Aristotle, Archytas, Chiron, and many others, said of music? May we not fairly ask ourselves, what would they have said had they known music in its present high development? For, putting aside the wild conjectures of the Middle Age Latinists,\* we must acknowledge that music, as now understood, is a product of these latter centuries.

Music develops as the human intellect endeavours to soar above mundane trivialities in rapt ecstasy, in search of a Divine ideal. The rough savage, the grovelling heathen, knew not, know not what music really is. Still, harmony seems a part of nature, as

\* For a just estimate of the power of ancient music, see Brocklesby, Burney, Chomet, etc.

much as light or heat, and can hardly be justly claimed as a human invention.\*

We have been told that music has not an intellectual but an emotional, a physiological basis. It "arouses dormant sentiments of which we have not conceived the possibility and do not know the meaning."† Such a theory hardly seems to agree with facts, but, adopting it as true, we only see in it a strengthening of the arguments of those who would wish to see music, with its undoubtedly vast influence, brought within the range of pathological possibilities. Many of the ancients and moderns who have devoted their attention to the physical and mental wants of man have repeatedly recognised music as a therapeutic agent of the utmost value, and warmly advocated its use in the cure of disease. In the Bible we read: "When the evil spirit from God was upon Saul, then David took a harp and played with his hands. So Saul was refreshed, and was well, and the evil spirit departed from him." The Psalmist tells us over and over again of the far reaching influence of music

\* "A General History of Music," by Charles Burney.

† "Essays: The Origin and Function of Music," by Herbert Spencer.



on suffering human nature. "It was natural," says Fosbrooke, "for such a man of such a mind and feeling to derive from music solace in adversity, and exultation in prosperity. It was a natural impulse by which he was taught to abate sorrow and augment happiness. It was a pure and rational method of expressing piety and praise."\* We, too, feel this, and in our moments of joy and exultation are apt to break out in song, while grief and anger impels us to a natural musical intonation.

Pythagoras looked for music in the universe, practical philosophers have caught it and trained it for the benefit of common mortals.

Now, we are well aware that many of those who are inclined to regard medicine as an exact science, will be apt to disregard ancient authority and modern theory in this matter, and ask, "How is it possible for an emotional art to act physiologically?" These doubters we will send to Helmholtz, Herbert Spencer, James Sully, and Grant Allen. Looking at music merely from the physicist's point of view, we must still allow that its influence, both mental and physical, may be considerable, principally owing to the emotional character of

\* "Choir Service Vindicated," a sermon by Rev. J. D. Fosbrooke, M.A., F.A.S.

our natures. For body and mind are so closely allied, their natural sympathy so subtle and intricate, that what affects the one will affect the other.\*

As Southey says : "As the beams to the house, as the bones to the microcosm of man, so is order to all things : " a truth patent to all physiological students.

Herbert Spencer, speaking of the intellectual and psychological aspect of music, says : " Those vague feelings of unexperienced felicity which music arouses—those indefinite impressions of an unknown ideal life which it calls up, may be considered as a prophecy, to the fulfilment of which music is itself partly instrumental. The strange capacity which we have for being so affected by melody and harmony may be taken to imply both that it is within the possibilities of our natures to realise those intenser delights they dimly suggest, and that they are in some way concerned in the realisation of them. On this supposition the power and the meaning of music become comprehensible, but otherwise they are a mystery." †

\* "When any laws of the animal economy are but partially disturbed, the constitution of the whole sympathises accordingly."—Richard Brocklesby, M.D.

† H. Spencer, *loc. cit.*

Before going any further it will be necessary to give a brief account of the theory of music advanced by the physicist, viz., the Undulatory or Sound Wave Theory; of which the German, Helmholtz, is the great modern exponent.\*

According to this mechanical explanation, music is merely harmonised sound—assonance in contradistinction to dissonance. Now, sound is produced by vibrations in the air; tremulous motion is set up by mechanically imparting a concussion to the highly elastic atmospheric atoms; these undulations are more or less extensive and far-reaching, slow or rapid, according to the strength and nature of the concussion imparted to the atmosphere—quality and tone also depending largely upon the nature of the mechanical agent made use of. Such undulations are known as sound waves, and reaching the region of the ear, impart their activity to the air in and around the aural cavity, and so act directly on the thin membranous tympanum or ear-drum. These motions affect the aural nerves, which duly carry the impression or “message” to the nervous centres and brain, making us conscious of a

\* “Physiological Grounds of the Theory of Music,” Helmholtz.



noise—harmonic or otherwise. This is but a rough, perhaps unsatisfactory, account of the undulatory theory of music, but, strictly divested of all its technicalities, the above is a correct outline of the mechanical doctrine. For more elaborate details, the reader should consult Helmholtz's bulky tome, or James Sully's "Sensation and Intuition."

Though it has assumed more importance of late, many years ago this theory was already practically applied to medicine, when Dr. P. J. Burette, editor of the celebrated *Journal des Savans* (Paris, 1723), made a searching inquiry into the works of the ancients dealing with music. He sifted the evidence with commendable zeal, carried on personal experiments, and arrived at the conclusion that music, by repeated shocks given to the nerves and other parts of the system by atmospheric vibrations, was of use in the cure of disease. He held that it worked on the discomforted organism by pleasing the ear, diverting attention from too close observation of discomposing symptoms; then, by causing violent vibrations of the nerves, moved the "humour" and "animal spirits," and broke down malign obstructions. This doctrine might well hold

good with the practitioner of to-day, now that we have witnessed a partial return to the discarded "humoralism" of our ancestors.\*

\* Dr. A. M. Brown, Surgeon-General Sir William Aitken, Professor Armand Gautier, Mr. Reginald Harrison, F.R.C.S.

## CHAPTER II

### FURTHER THEORIES ON PHYSIOLOGICAL INFLUENCES

“There’s not the smallest orb which thou beholdest,  
But in his motion like an angel sings,  
Still quiring to the young eyed cherubims.”

*Merchant of Venice.*

MANY people have shown themselves far from satisfied with the elaborate explanations and experiments of the physicists. Accepting their theories to a large extent, they declare that the undulatory theory is by no means sufficient to explain all the phenomena of music and its influence on animated nature. Dr. Richard Brocklesby, writing in the year 1749 says: “I must beg leave to dissent from that opinion which ascribes its operations (*viz.*, that of music on body and mind) to a mechanical undulatory pulsation of the air on the extremity of the nerves.”\*

Something more than this was required to satisfy these ardent enquirers. Perhaps the most complete theory set up in opposition

\* “Reflections on Ancient and Modern Musick, with the application to the cure of Diseases,” by R. Brocklesby, M.D., F.R.S., London, 1749.

to the purely mechanical doctrine was that put forth by Dr. Hector Chomet, of Paris.\* He supposes space to be charged with an "imponderable fluid," which he names "sound" or "tone ether," and conjectures to exist everywhere, like the ether of light and heat theory ; to be ever present; active or dormant, like "electricity." He then asserts that living beings, and, to a certain limited extent, even inanimated objects, are capable of undergoing the influence of this "imponderable tone ether"; that this sympathy or antipathy to the "ether" is constantly manifested, and often produces most curious effects. Again, this "imponderable fluid" is capable of combining, modifying, and changing its character in many ways, just as we see in the case of light, heat, and electricity. Now this combination of sound, under given circumstances, has been called music ; and when we produce this said music by mechanical means, we make use of the ever present but impalpable volume of sound ; in other words, we put ourselves in immediate communication with a new force, a force which, for good or evil, has vast

\* "Effets et influences de la Musique sur la santé et sur la Maladie," par M. le docteur J. A. Hector Chomet, Paris, 1874.



influence over the animal economy. Thus far Dr. Chomet. But, although this theory may seem somewhat startling, it would undoubtedly greatly help us to explain many of the mysterious phenomena of music.

If Dr. Chomet is right, we might then safely assume that this "tone ether" permeates the whole animal economy, is present in every tissue, finding its way into the lungs, and from thence conveyed by the blood to the remotest ramifications of the system. Some such theory was held long ago.\* We might then be likened to a reservoir charged with "tone ether," the tympanum of the ear acting as a medium of communication between the charged cavity and the outside activities. The learned Paris physician has much to say in support of this theory, but we cannot follow him very closely in his long and careful *exposé*. Among some of the curious effects of music which he calls in support is one with which we are all more or less familiar, that is, prolonged and distant echoes, and its modified form or time echo in our own minds; that is to say, the capacity of our brains to retain, unconsciously, simple or elaborate tunes, which recur to us unexpectedly, and

\* "De Musicis in corpus humanum," by J. H. Hausen, 1833.

apparently without rhyme or reason. He also says, "le son pénètre tous les corps, et si l'on fait de la musique dans un appartement, dans une salle de spectacle ou dans une église, il n'est pas rare d'entendre les meubles, les loges, ou les autels résonner à l'unisson des instruments."

Probably, such a theory as this will be held unscientific, but, as we have already said, it would help us to solve many a mystery, and, fundamentally it does not really greatly differ from the sound wave theory. It is largely a matter of persons discussing identical phenomena in different terms—a question of language, indicative of frames of mind rather than distinction of matter.

M. de Laprade, of the Académie Française, says: "Il est incontestable que la musique nous emporte dans le sentiment de l'infini et la contemplation de l'invisible, à des hauteurs ou atteint à peine l'esprit pénétré par les plus sublimes spectacles de la création. Nous cessons de sentir notre corps; la terre disparaît à nos yeux; notre pensée flotte dans l'incorruptible éther comme une essence immatérielle: notre âme n'a plus de limites, nos petites passions s'évanouissent, notre personnalité s'abditue, elle est sur la point

de se dissoudre dans la vie universelle. C'est la véritable extase."\*

An ecstasy? Well, yes, some people may feel inclined to say; but may it not mean more, far more, than this? May we not have here a glimpse of that higher state of being which we must suppose will be our lot when our soul gets free from its terrestrial mud-hovel? May we not while here, on our earthly pilgrimage, be devoid of one sense, a sense which would enable us to float above the terrific wonder of space, time, and eternity? This sense, they might fairly argue, may be a musical one, for what we know to the contrary, seeing that music is so powerfully influential.

Possibly when our immaterial spirits are released from mortal flesh we may be put in complete harmony with the ever-present, intangible, but all powerful "tone-ether." Such harmony is imperfect during our present condition, though under given circumstances we may feel the effects of this wonderful music.

All this, and far more, has been put forward again and again, by sincere and ardent

\* "Contre la Musique," par P. M. V. Richard de Laprade, Paris, 1880.

students; holding the most diverse opinions. What food for thought Mr. Sully affords us, when he says: "All knowledge takes its rise in the senses. Our ideas can never go much beyond our sensations. The addition of a new sense, if such a thing were possible, would enrich our minds by a new kind of knowledge respecting the world."\* With us, it is true, music is far more carnal, more sensual, than ethereal and spiritual; but this too, it might fairly be held, may only be another manifestation of the mysterious amalgamation of soul and body under which we labour. M. de Laprade says again, "*La musique est le moins humain de tous les arts. Elle est divine si vous voulez, mais divine comme la nature, comme tout ce qui est en dehors de l'homme.*" But we will not ask our readers to accompany us any further in this speculative, Beethovenish flight,† more especially as those who do not hold with good old Montesquieu when he says, "Music is the only one of all the arts which does not corrupt the mind,"

\* "Outlines of Psychology, with special relation to the Theory of Education," by James Sully, M.A., London, 1885.

† Said Beethoven: "I willingly renounce the world which has no presentiment that music is a higher revelation than all their wisdom and philosophy."



may opine that the delightful art is rather apt to—

“Change in a trice,  
From the lilies and langours of virtue  
To the roses and rapture of vice.”

M. de Laprade comes back to the attack with an indisputable argument, stated in all the brutal harshness of philosophic diction: “Notons d’abord un fait considerable. Le seul des arts auquel les animaux, les fous et les idiots soient sensible c’est la musique. Il y a donc en elle un élément tout physique, une sorte d’électricité qui s’adresse au fluide nerveux, indépendamment de toute action sur l’intelligence et sur le cœur. La volonté ne peut rien pour ou contre cette élément de la musique.” We have here a striking truth, wrapped up in an unpleasant verbal garb, and one that need not necessarily make us follow the learned Academician to the bitter end. Far from it; the real musical enthusiast while accepting the undoubted truth, may deduce from it a totally different conclusion, one eminently ennobling to his beloved art. And, as we have already endeavoured to show, there would really be no inconsistency in this apparently contradictory confession of faith.

Grant Allen, who deals at some length with the psychological aspect of music, has also much to tell us. "The great mass of pleasurable feelings aroused by music is undoubtedly due to the power of suggesting and stimulating the various complex emotions. It is a well-known fact that mere collocations of sound, without words or other interpretations, will rouse martial enthusiasm, quicken religious feeling, or bring tears to the eyes of thousands."\* This he attributes to natural laws, for "the high and low tone respectively are the natural expressions of different passing emotions both in man and other animals." He then very elaborately illustrates this by showing what are the most natural modes of expression, by exclamation and intonation, of man and the lower animals; when under the stress of strong emotions. All which, looked at narrowly, and admitting the thin thread of mystery throughout, goes far to demonstrate that music is founded upon or is the cultivated expression of, natural physiological laws: evidence of which the musical pathologist should make a note.

At all events, we cannot possibly doubt of its real power over the animal economy.

\* "Physiological Æsthetics," by Grant Allen, London.

Such power is often curiously and strikingly exemplified, both in man and the brute creation. Voluminous evidence of all kinds relating to these facts has been amassed and may be easily consulted. One or two instances we cannot refrain from quoting : It was towards the latter end of the eighteenth century that a well-known practitioner made a series of very pretty experiments. His subject was “ a child not two years old, born of musical parents, who was one day remarkable for mirth and good humour upon hearing some sprightly airs of musick ; this gave occasion to the father and Mr. Stanley to try the effects of different measures, when they had raised the infant’s spirits very high by these means. But as the chromatick and graver strains began, the child grew melancholy and sad, which temper was removed as soon as pleasanter music was played. Thus, as I am informed, they could, solely by this art, raise and allay joy and grief by turns in the infant’s mind.”\* Then that garrulous but essentially practical man, Samuel Pepys, tells us of inner workings set up by good music. One fine day, as was his wont, he went to the play (Massinger’s *Virgin Martyr*). He did

\* Dr. Brocklesby, *loc. cit.*

not think much of the piece, though the acting was good, but—

“That which did please me beyond anything in the whole world was the wind musick when the angel comes down, which is so sweet that it ravished me, and indeed, in a word, did wrap up my soul so that it made me really sick, just as I have formerly been when in love with my wife ; that neither then, nor all the evening going home, and at home, I was able to think of anything but remained all night transported, so as I could not believe that ever any musick hath that real command over the soul of a man as this did upon me, and makes me resolve to practice wind music, and to make my wife do the like.” It is well to mention, by the way, that of the actual result of the experiment we have no positive information. Pepys himself studied music assiduously, and seems to have drawn much philosophical solace from the pastime ; but of Mrs. Pepys in this connection we hear nothing ; perchance she, like Lady More, was one of those unfortunate people whom Shakespeare warns us against.

That greatest of medical philosophers, Sir Thomas Browne, in his *Religio Medici*, says, “Even that vulgar and tavern-musick, which



makes one man merry, another mad, strikes in me a deep fit of devotion, and a profound contemplation of the First Composer. There is something in it of divinity more than the ear discovers: it is an hieroglyphical and shadowed lesson of the whole world, and creatures of God,—such a melody to the ear, as the whole world, well understood, would afford the understanding. In brief, it is a sensible fit of that harmony which intellectually sounds in the ears of God. I will not say, with Plato, the soul is an harmony, but harmonical, and hath its nearest sympathy unto musick: thus some, whose temper of body agrees, and humours the constitution of their souls, are born poets, though indeed all are naturally inclined unto rhythm.” De Quincey, commenting on this passage, says: “The mistake of most people is to suppose that it is by the ear they communicate with music, and therefore, that they are purely passive to its effects. But this is not so, it is by the reaction of the mind upon the notices of the ear (the *matter* coming by the senses, the *form* from the mind), that the pleasure is constructed; and therefore it is that people of equally good ear differ so much in this point from one another.”

The Rev. H. W. Haweis in a lecture "On Music and Morals," delivered before the Parliament of Religions during the Chicago Exhibition, said : " Now, in case after to-day any one asks you what is the connection between music and morals, I will give it to you in a nutshell. This is the connection : Music is the language of emotion. I suppose you all admit that music has an extraordinary power over your feelings, and, therefore, music is connected with emotion. Emotion is connected with thought. Some kind of feeling or emotion underlies all thoughts, not from moment to moment as they flit through your minds. Therefore, music is connected with thought. Thought is connected with action. Most people think before they act, or are supposed to—at any rate I must give you the benefit of the doubt ; but thought is connected with action, and action deals with the conduct or use, and the sphere of conduct is connected with morals. Therefore, if music is connected with emotion, and emotion is connected with thought, and thought is connected with action, and action connected with the sphere of conduct or with morals, things which are connected by the same must be connected with one another, and there-

fore music must be connected with morals. Now the real reason, the cogent reason, why we have coupled these three words, music, emotion, morals, together, is because emotion is connected with morals. You may have a good thought, but if you have not the steam power of emotion or feeling at the back of it what will it do for you? A steam engine may be a good machine, but it must have the steam. And so our life wants emotion or feeling before we can carry out in actions our thoughts and aspirations. Indeed, so strange is this wonderful inner life of emotion with which music converses at first hand most intimately without the mediation of thought or words, so strange is this inward life of emotion, so powerful and important is it, that it sometimes transcends thought. We rise out of thought into emotion, for emotion not only precedes, it also transcends, thought. Emotion carries on and completes our otherwise incomplete thoughts and aspirations. Tell me when does the actor culminate? When is he pouring forth an eloquent diatribe? When he is uttering the most glowing words of Shakespeare? No. But when all words fail him and when he stands apart, with flashing eye and quivering

lip and heaving chest, and allows the importance of exhausted symbolism to express for him the crisis of his inarticulate emotion. Then we say he is sublime ; emotion has transcended thought."

However, it is not only on the higher emotional plane music can be of service to humanity—it has a wider binding power. So Mr. Haweis concluded by saying : "Cultivate music at home ; harmonise crowds with music. Let it be more and more the solace and burden-lifter of humanity, and, above all, let us learn that music is not only a consolation, it not only has the power of expressing emotion, but also the power of disciplining, controlling, and purifying emotion. There is a boundless future for music : we have not half explored its powers for good."

An older music critic, the Rev. J. D. Fosbrooke, in his treatise on choral service already quoted, brought forward much the same arguments in the days of our great grandfathers. In a particularly eloquent passage he says :—"In truth, the art of music is of the highest rank in scripture, in reason, and in nature. What, in fact is music, but vocal sculpture, the conformation of sounds to a standard of beauty ? What is



it but an elevation of the character of sound from humanity to heroism? Music unlocks the stores of memory, reminds us of impressions, which once were felt in rapture, and makes us live again over hours of past happiness. It brings back the cloudless skies of hope! It steeps in tears the sparkling eye of thoughtless merriment and yet does not destroy its felicity. It teaches the mourner that there may be a joy in grief itself. Does not the very power of producing such wonderful effects show that the production of fine sounds is a condescension of Providence, allowed to us for the benevolent purpose of eliciting part of the Divine attributes? May there not be vision in sounds, and colour in words? Are there not sunrise and sunset, golden clouds, blue skies, and gay rainbows in the varied atmosphere of music? Are not lightnings, thunders, and all the mightiest impressions of the senses to be effected by sounds? Will not the trumpet alone of the Giant Archangel be an earthquake which will raise us out of our graves? And when we are in heaven itself, all exterior pleasure will consist in eye and ear, in vision and music? Even upon earth, Church-music is the epick poetry of devotion;

as far as lies within our mortal means we bring down from Heaven the hosannas of the seraphs, who sing around the throne of God ; and we set to the holy tunes the sublime idea of the inspired prophets.”

## CHAPTER III

### THE MISSION OF MUSIC

“What passion cannot Music raise and quell?”

DRYDEN.

“Music hath charms to sooth the savage breast.”

CONGREVE.

THE “mission of music” has been long and very warmly squabbled over. On the one hand we have a learned physician who tells us: “Music has as little to do with morals as it has to do with intellectuality. It is too vague and indefinite to create a mental picture, far less to tell a story, moral or otherwise, in the absence of a verbal theme, of which it is capable of being made the beautiful accompaniment.”\* And on the other side, it is just as stoutly advocated that, “the musical style and character of a people is the thermometer of the physical susceptibilities and moral sentiments of a nation,” a statement which, if rather rhetorical in construction, seems to be rational enough,

\* “Ethics and Æsthetics: a Causerie Intime,” by A. M. Brown, M.D. Privately printed. London, 1889.

and founded on truth. For, as a matter of fact, music varies (or did so, before cosmopolitanism in this sphere and other kindred abominations supervened to drag us down to one ugly dead level of insipidity) as much as national character does. Climate, manners and customs, the degree of civilisation, all seems to find fitting expression in truly national music. In this matter we must view popular music quite apart from the polished productions of the classic masters and their schools. We find the Italians passionately addicted to love ditties; the French fond of quick and brief movements, full of gaiety, and often empty of much deep feeling, rarely rising to the sublimity of a Marseillaise; the Germans are slow, lengthy, and calm in musical reveries, with a strong leaning towards mysticism; we English swear by ballads full of tears or warlike sounds, have no objection to occasional ghostly effects, love the "green countree" and fantastic ditties; the Southern Russian peasant takes his music sadly, moaning out interminable complaints; the stoutly-built Corsican makes night hideous by wild strains of vengeance and heartrending *voceri* reeking with blood. It is somewhat difficult to



delve down to the real and unadulterated national popular music ; but when we can get hold of it, we are able to trace in it a characteristic likeness of the singers.

In Provence one listens to the gay chants; full of exuberant life and sunshine, charmingly trilled by the peasants. Then there are the melancholy but beautifully sweet Scandinavian folk songs, the crystallised thoughts of the people. In the words of one of them :

“ It made itself as it sped along,  
A floating log brought to me its song.”

There is the sighing of the wind among the trees, and the swish of running water in those expressive ditties from the Northern lands.

Now, of course, if we once admit the truth of this, then we are equally obliged to allow that music is capable of conveying a special and definite meaning or mental picture ; in other words, of telling a story.

Travellers in untrodden paths and the lands of uncontaminated savages, all tell us that those they have met with have bowed down and acknowledged the reign of music. In the far East a musical science, dating back many centuries, still survives, and is able to work miracles. The as yet imperfectly known

land of China holds many a surprise in store for the student of music. A poetical legend recounts how "Tcho-yung (one of their mythical emperors) is said to have listened to the songs of the birds while the empire was in a state of profound peace, and their singing caused him to invent a music which penetrated everywhere, speaking to the intelligence, calming the passions of the heart, causing perfect equilibrium in the emotions, facilitating and improving the use of all the senses and prolonging the life of man." Alas! to all appearance. this beautiful music has been lost to the children of the Flowery Land for ever and aye. This is the appreciation of a Westerner; it is only fair to point out that a native Court physician averred that their music had great charms and the most powerful effects on them: "The melodies of our music pass through the ear to the heart, and from the heart to the soul," asserted the sage.\* Said Confucius, "The wise man seeks by music to strengthen the weakness of his soul, the thoughtless one uses it to stifle his fears."

Schoolcraft, speaking of the American

\* "Memoire sur la Musique des chinois, tant anciens que modernes," par Joseph Amyot, Paris, 1779.

Indians says : “ Singing and dancing are applied to political and to religious purposes by the Indians. When they wish to raise a war-party, they meet to sing and dance : when they wish to supplicate the divine mercy on a sick person, they assemble in a lodge to sing and dance. No grave act is performed without singing and dancing.”

Returning to the East, we are forcibly struck not only with the power but the symbolical characterisation of music. Mr. E. F. Knight, as an observant traveller in that rarely visited land of the lamas, Tibet, says that he once heard five of the priests give a sacred concert. He says that they were “ provided with long shawns, gongs, and cymbals, and sat on the floor in the middle of the chamber, executing the sacred music of the Tibetan Buddhists, fantastic as everything else Tibetan, with abrupt changes and strange discords ; while now and then the music would suddenly cease, and with subdued voices the monks would engage in a wild and melancholy chant in the minor key. It was music such as I had never heard before in the East—barbaric, but in a way singularly impressive, well fitted to the mystic Buddhist faith—music that was older than the creeds

of Europe, and seemed to awaken vague reminiscences of a far barbaric ancestry, or the former existence through which, according to the Buddhist doctrine, the soul has passed." This music, however, is composed on a scientific system, though differing radically from our own—the almost inappreciable modulations of quarter notes requiring knowledge and a keen ear to appreciate its true delicacy. Later on the same traveller was among the warlike robber tribesmen of Nagur, who gave us so much trouble at Gilgit and Nilt. These hereditary robbers of the far off mountains on the Kashmir frontier, are very fond of music, and every noble has a band of his own. Mr. Knight found these Kangut musicians excellent: "the melodies, barbaric and in the minor key, are often singularly impressive; and the songs are not the melancholy lamentations of a subject and oppressed race, but the spirited war-chants of a conquering people, in which the bard triumphantly celebrates old fights, successful frays, and the raids on caravans of treasure; while to the furious beating of tomtoms all the tribesmen round clap their hands and energetically join, with flashing eyes, in the savagely exultant chorus—the



sort of thing to quicken the pulses of men and excite in them the lust of battle.”\*

The Hindoos have a strange but really scientific and powerful musical system, capable of great things. † Moreover, they had, long before Europe awoke to civilisation, treated music philosophically and scientifically ; seeking out its mechanical production and mysterious influence. We have also discovered other ancient systems of music, now extinct. But the savage, in his vast continental forests and plains, in his valleys and mountain-chains, or in his ocean-bounded islands possesses a music of his own. It is rude, and probably would not be readily recognised by our highly educated professors and exacting *cognoscenti*. Still, with them, their music, vocal and instrumental, is a real power, means much, and, in the hands of the skilled, may accomplish wonders. The tribe steeped in lowest barbarism will express their pleasure, anger, alarm, and fear musically, if not melodiously. The priests hold their disciples captive with it ; the medicine-man charms the evil spirits, and frightens the

\* “ Where three Empires meet,” 1893.

† “ Works,” 1799 ; “ On the Musical Modes of the Hindus,” 1807, by Sir William Jones.

strong ones away with drum and fife. Veracious travellers have recorded astounding cures effected by these rough and ready *medicos* with the aid of their appalling music. And here it is well to observe that, according to some authorities, the curative powers of music depend rather upon the strength and volume than the quality. It is not a pleasant confession to make, but we are obliged to do so, for Dr. Burette, of Paris, held that sciatica could be relieved and cured, as well as several nervous complaints, by music, quite independently of the greater or lesser skill of the musician. For in these cases the music merely acts as a stimulant, giving rise to nervous and muscular irritation, causing physiological actions. According to this, we should not expect the savage musical medicine-man to soothe the wearied breast, relieve the overworked brain, or calm frantic madness, while he could quite well cure less complicated maladies.

Much of our refined music is scarcely appreciated by some savages ; though, on the other hand, many native tribes are visibly affected by it. As a rule, the "pictorial" musician, the improvisator, is appreciated and cherished. We, in Europe, know well

the power of association as attached to music. The martial airs, religious tunes, and national songs call forth enthusiasm by means of these associated ideas. The *Ranz des Vaches* has a marvellous hold on the Switzers; it was a penal offence, without benefit of clergy, to play this lamentable "tune" in the army of the old French Bourbons. The beautifully simple "Home, Sweet Home" will bring tears to the eyes of the bronzed exiles and bearded pioneers in far distant lands. Scotsmen, Calabrians and other hillmen will go into raptures over what many people consider the squeaking blasts of a fiendish abomination, the bagpipes! Clement Marot's Huguenot Psalms, set to lively tunes, did wonders for the Reformers. "If music," says M. de Falloux, "merely impelled man to reverie, I should still think it ought to be counted among the highest of his servants." Dreaming has never accomplished anything, nor can it terminate anything, though it is the "beginning of a great deal." But "music takes energetic part in the struggles of humanity, and it is then that the spiritual influence of music makes itself felt. We have only to refer to national music, military music, and religious music." It is,

indeed, difficult to believe that, for instance, the early and simple tunes of the Mother Church would not appeal to our reverential feelings apart from all association of ideas.

The Reverend Father Athanasius Kircher,\* however, who wrote a large volume on music, seemed to hold that nearly everything depended upon ideal and material associations and surroundings. In his model plan for musical government, he assigned particular places for each style of music. Moreover, he thought that executants should pay special attention to the seasons when planning their concerts. May, June, July, August, September, and October he held to be particularly favourable to music; November, January, February, March, and April he esteemed baneful. "Cold, dry winds," says the enthusiastic abbé, "help the vocalists; whilst fogs, wet, and even humid winds will play them sad tricks." He attributed special virtues to each instrument, and here Dr. Chomet agrees with him. This musical pathologist suggests that each instrument has a specific value, as well in a medicinal as a musical sense; that they are specially adapted to different styles—sad, gay, and

\* "*Liber philologicus de suo artificioso sive Musica*," 1744.



so on—and to various ailments. An accurate classification of these occult values and their symbolism would, he said, prove of incalculable service to medical men and composers.

This path to medical glory is still open to some painstaking enthusiast. We tender the following advice to such a one : refer to, and carefully read through, two highly interesting and amusing papers, by Addison, on “Character in Conversation Described as Instruments of Music.”\* These papers may very possibly hide some useful hints for the future *medico-musical* pathologist. In direct connection with this we would also recommend our readers to peruse Mr. J. F. Rowbotham’s paper “On the art of Music in Pre-historic Times” (*Journal of the Anthropological Institute*, May, 1881). Mr. Rowbotham suggests that musical instruments, in spite of their apparent wide diversity; are really divisible into three groups. These are : first, the drum type, or instruments of percussion, including rattles, castanets, cymbals, drums, etc. : second, the pipe type, or wind instruments : third, the lyre type, or stringed instruments. These three types, the author holds, are representative of the three distinct

\* *Spectator*, Nos. 153 and 157.

stages in musical development. We find in the first period the earliest rude attempt at making recognisable and codifiable noise symbols. In the second period there is an advance to greater accuracy and sense of beauty, with a greater power of rhythmical arrangement. Thirdly, we have the grand culmination of instrumental invention in the divine lyre and its innumerable offspring.

## CHAPTER IV

### DEEP SEATED ACTION

“Though cheerfulness and I have long been strangers,  
Harmonious sounds are still delightful to me ;  
There’s sure no passion in the human soul  
But finds its food in music.”—LILLO.

WE have travelled a long way in search of these more or less abstract theories—necessary excursions, however, for the better understanding of our immediate subject. We must now return to the region of medicine and the theory of practical musical therapeutics.

Taking the commonly-accepted physicist’s theory of music, with its atmospheric sound-waves, tympanum vibrations, and nervous stimulation and exhaustion, by the horns, we see that the musical pathologist has still a leg to stand on. It is not difficult to understand that by producing excessive nerve-waste, a sensation (mental and physical) of a more or less decided character will be set up. Or again, by soothing the auditory nerves by means of gentle and agreeable

stimulation, we induce repose and certain well-marked physiological effects.

This does not exclude the intellectual. Has not James Sully written :

“ The high intellectual character of hearing shows itself plainly in the qualitative differences. . . . In the case of musical sound we have the remarkable phenomena of a scale of sensation. . . . In the discrimination of pitch the ear shows a delicacy far superior to that of the other senses.”\*

And again : “ This scale of pitch is closely analogous to that of intensity. Thus there is a lower threshold below which the slow atmospheric vibrations no longer produce a continuous sensation of sound, but rather a succession of non-musical sensations. At the upper extremity of the scale there is a point of maximum pitch below which any further acceleration of the vibrations is followed by a non-musical effect of grating sound.”†

An earlier philosopher than Sully, Richard Browne, recognised intellectuality, and the need for cultivating it.

“ The pleasures of singing admit very much improvement, for by frequenting the School

\* “ Outlines of Psychology.”

† “ The Human Mind.”



of Musick, we not only tune the organ of hearing, and refine its distinguishing faculty, so as to give the soul a more nice perception of harmony, but by the application of theory (as in other Arts and Sciences) we become more capable of judging of the truth and exactness of the composition. By this means we are enabled to treasure up in our minds more clear and true ideas of every mystical beauty and embellishment in the time; and by raising the discernment of the ear into delicacy, every fine tremulous oscillation, which to vulgar ears would be imperceptible, and thereby much of the harmony be abated, is distinctly felt, and enjoyed.”\*

There are points at both extremities when the vibrations cease to be recognised as sounds. The humming of a top is blurred to the hearing as it is to vision at the maximum of its gyrations, while the buzzing and calls of some insects which are only intermittently audible to us, or pass unperceived, apparently are quite perceptible to their own kind. It would seem, therefore, that there exist sound

\* “*Medicina Musica ; or a Mechanical Essay on the Effects of Singing, Musick, and Dancing, on Human Bodies ; to which is annexed a new essay on the Nature and Cure of the Spleen and Vapours. Revised and corrected by Richard Browne, Apothecary in Oakham, in the County of Rutland,*” London, 1729.

vibrations which go unnoticed so far as our normal consciousness is concerned ; in the same way as in optics there are supra and infra dark or X-rays—rays, that is, beyond the visible spectrum, which are not seen, though having a definite chemical action as well as a measurable physiological effect on the nervous centres by stimulation through the retina. May it not be that our nervous system is also influenced by sub-conscious response to the “unheard” sound waves ? If that be so, we may find here a solution to those unexplained phenomena—the “feeling” of an unseen presence, of an approaching or hidden person, the power of some blind or gifted persons to avoid collision with the animate or inanimate obstructions ; or again, that uncanny sensation that thrills our whole being with the fear of impending danger. May we not venture to assert that while the retina allows us to recognise light and colour, the tympanum to discriminate between assonance and dissonance, also place our sub-conscious selves in communion with the infinitesimal motions of the circum-ambient ether—we are targets pelted with the restless ions, or, if you will, bathers in the music of the spheres.

From this point of view, animate bodies would be sources of music in two ways—giving off sound waves through the vibrations of the bombarding ions, the undulating ether waves (which phenomena they share in common with inanimate bodies), and secondly, other waves would arise from the mechanism of breathing, together with the pulsation set up by the internal circulatory systems, perhaps even metabolism which would involve the functioning of the cerebral tissues—that is to say, thought itself. May it not be through the subtle influence of these “unheard” sound waves, necessarily divergent in different beings, that mysterious antipathies are felt? There must often be want of harmony in the approaching, overlapping waves, even active antagonisms of waves of divergent pitch and period. Then we might recognise the “aura” as something sufficiently positive, the emanations of the ego manifesting themselves more or less directly to the sensitive, now in the form of light, anon in the guise of sound—both modes of motion.

All bodies, animate or inanimate, are sounding boards. Consequently, the tonal value of any body must differ in accordance

with its healthiness (soundness), varying in quality (volume and intensity) as its vitality is greater or less, its soundness more or less perfect. The cause or causes of unsoundness must have reflex actions. So we must expect variations from individual to individual, and in particular individuals from time to time, according to circumstances. It is natural therefore, to expect unevenness in a body's receptive capacity as regards sound, or music, and its power to give out sound, or music. In the musician and singer this unevenness in the active and passive attitude is classed as temperamental; but that is merely a loose way of expressing a sensitiveness to variations in mental and bodily health which is more observable in some persons than in the generality.

This may be the better understood by analogy with musical instruments. For instance, the tonal values of the fiddle family depend not only on the thickness of the wood used and the contour of the particular instrument, but also on the quality and soundness of the wood, its grain and flawlessness, even the tooling of the wood and its dressing (oil, varnish). So, too, with the whole tribe of metal instruments. Here it is not merely

a question of the thickness of the metal and the shape of individual instruments, but the nature of the alloy employed, its atomic weight, molecular formation and consequent elasticity, which means responsiveness to impact and more or less rapid recovery to the normal. It is to be noted that in both cases—wood and metal—the original characteristics may be impaired by “sickness” brought about by mechanical injury or chemical reaction (mostly oxidation), or by “fatigue” brought about by prolonged mechanical disturbance. These phenomena are well authenticated in connection with wood and metal. They are no less so in the matter of physiology, as we shall at once recognise if we reflect on such commonplace ills as “speakers’ sore throat” the strained vocal cords of the singer, the incapacity for powerful singing or shouting of those with defective lungs or diseased hearts.

If all this is admitted, then in sober earnest this brings us to practical considerations. “The several varieties of musical sensation, corresponding with tones of different pitch and of different timbre, have distinct effective concomitants. Thus tones of high pitch are more exciting or exhilarating than those of low pitch, which have a quieter and graver



character. Similarly, the tones of different musical instruments vary greatly in their shade of feeling. Thus we have the strong, exultant note of the trumpet, the more tender and soothing note of the flute, the plaintive sound of the oboe and so forth. As already pointed out, all musical tone is pleasurable within certain limits of intensity. The weaker degrees of intensity are attended with a different affective result from that which accompanies stronger intensities. Soft, quiet tones are soothing ; loud tones, exhilarating. With this contrast is closely connected the analogous one between slow and rapid musical successions. The art of music sufficiently illustrates the contrast of effect between soft, slow movements (*adagio*, *largo*) and louder and more rapid ones (*allegro*, *presto*)."\*

Still harping on the same string, we find mothers and nurses calming, most effectually, babies and young children with soothing and sweet music ; because the mind powerfully influences the body, and the body reacts on the nervous system and mind. Under the sway of music, body and soul may be said to be united in a close embrace. Acting directly

\* Sully : " The Human Mind."

on the nervous system, music is able to stimulate or soothe the brain, move the mind to action or lull it to slumber, the body necessarily feeling the benefit of the re-action thus set up.\* Anger makes us feel hot and uncomfortable ; fear chills, and makes us tremble ; joy, hope, and mirth cause a pleasurable sensation to run through our bodies.† Now these various and varying emotions and their natural physiological accompaniments, have a very real effect on the animal functions. Heart, pulse,‡ and the organs of secretion are all affected. We find passions and emotions inducing heart palpitations, profuse perspirations, obstructed digestion, fulness and throbbing of important arteries, and, above all, the brain generally clouded and oppressed. The normal functions of certain organs are altered, accelerated or retarded, and the whole system is upset, and suffers from the evil consequences. We know how much the bodily health depends on the mind ; and in just the

\* R. FA. Steinbeck.

† Richard Browne.

‡ "Monochordon symbolico-biomanticum, abstrusissimam pulsum doctrinam ex harmonias musicis, delucide, figuris que oculariter demonstrans, de causis et prognosticis inde promulgandis fidelite instruens, et jucunde per medicam praxin resonans pulsatum. per Samuel Hafenreffer, Ulmæ, 1640."

same degree does the brain depend on the body. We can easily demonstrate the truth of this by personal experiment. We need but lay a finger lightly on the pulse, or place the open palm of the hand over the region of the heart, and then sing aloud ; we shall find that the pulsations answer to the vigour of our exertions and the modifications we introduce into our vocal exercise. Instrumental music will produce much the same effects, only here the experiment is far more delicate. We may easily arouse almost any artificial "reflex" actions ; we have only to stick a pin sufficiently deep in a leg to produce anger, perhaps even fury and retaliation ; but if we place a soft cushion under an aching head we get a smile in return. From all this Richard Browne, the worthy eighteenth century apothecary, already referred to, argues that we must, in the practice of medicine, study the emotions ; and, in order to gain a beneficial influence over them, we should call in music to our aid. "An allegro," says he, "by short, quick, and brisk impressions upon the auditory nerves, communicates to the mind a lively, pleasing sensation, fills the soul with joy and cheerful ideas, and surprisingly invigorates the motion of the

spirits. On the contrary, the soft languishing trills and melodious strains of an adagio touch the nerves so finely, and inspire such ravishing sensations, as that the soul, by a sweet excess of harmony, is ready to dissolve in pleasures." Dr. Chomet holds much the same language: "Agitez progressivement le lymphatique par une musique forte et puissante ; calmez le nerveux par des melodies suaves et douces. A l'individu du temperament bilieux, faites entendre des chants legers, courts et empreints d'une aimable gaieté. Egayez les hypocondriaques, calmez les hysteriques, faites oublier aux epileptiques leurs accès et leurs convulsions. Evitez soigneusement surtout de rappeler, par vos melodies, tout dont l'ame, entierement occupée, devrait au contraire être à jamais degagée."

Steinbeck, in his learned Latin "Thesis,"\* treats largely of the varying effects of music on the sexes ; on infants, youths, adults, and the aged ; on those of different temperaments ; the "sanguinous" being easily touched, the melancholy deeply affected, the phlegmatic difficult to move. He then goes

\* "De Musices atque poëseos vi salutari operis prodromus, disquisitio inauguralis per Frid. Alb. Steinbeck, Berolini," 1826.

into the value of instruments and the broad characteristics of composition ; speculates on the different relative values of religious, theatrical, military, and dance music ; the effects of rhythm, harmony and melody, and their proper proportions from a medical point of view ; also glancing at the part necessarily played by musical habits and education. The treatise contains an interesting, if rather indiscriminative, abstract on the influence of music on the lower animals, the author concluding thus :

“*Quodsi musica tantum jam habeat vin in animalia, quantam in homines ipsos habebit !*”

With regard to the peculiar impressionability of lower animals to music, though readers may not care to accept all that has been written on the subject, there is no reason, indeed, no room, for betraying an inclination to sweeping scepticism. Many curious facts have been repeatedly observed and recorded by trustworthy authors. Its effect on lizards, spiders, and some other small creatures, is noteworthy. The writer of these papers has frequently attracted, and apparently fascinated, both the ordinary little grey and the large green lizards simply



by a continuous soft whistling. Snake-charmers in Africa and the East invariably employ music. Sir William Jones records many curious statements about the influence of Hindoo music. Cavalry soldiers, grooms, and stable-helpers will tell you what they think of the power of music and whistling on horses. We may refer to a series of elaborate experiments carried out with the violin at the Zoological Gardens, Regent's Park, showed that wolves, foxes, hyenas, jackals and dogs were all affected by music, most of them evidencing nervous curiosity, which awakened to instant and vehement protest on a discord being struck. On this subject the reader should also see Dr. Chomet's book for many very curious and well-authenticated details

## CHAPTER V

### MUSIC AND MADNESS

“ A cheerful mind brings power and vigour, makes a man rejoice, stirs up nature, and helps her in her actions and motions, of which sort are joy, mirth, and whatever provoakes to laughter, as also instrumental musick, and songs, to converse with company which discourse facetiously, to look on the heavens and stars.”—BACON.

MARTIN LUTHER, with his habitual outspoken vehemence, declared that there was only one order of being who hated music—the devils !\* He quotes Saul’s case in corroboration.

A great authority on melancholy, quaint old Robert Burton, believed firmly in the art, and declared it unnecessary to waste time over “ declamatory speeches in praise of divine music,” for it was well known that “ beside that excellent power it hath to expel many other diseases, it is a sovereign remedy against despair and melancholy, and will drive away the devil himself.” We

\* Professor Blackie, lecturing some years ago, in Edinburgh, declared music and song to be the greatest harmonizers of life ; he added : “ The devils in hell do not sing ; but the angels do, and all good men. Many of their songs are better than many of their sermons.” Luther also said : “ Next to Theology I give a place to Music.”

should not forget, however, that music is a two-edged sword. The love-lorn flautist may well drive us to despair, if the next-door neighbour does not send us mad with his Wagnerian attacks on the pianoforte, while many an organ, alas ! is only too well devised to hurry us into a rapid melancholic decline. If it will drive away the devil under certain circumstances, under others it will most assuredly call him to our feasts, and turn them into revels and orgies. Nay, it has much of the true magic about it, and may easily and speedily enough transform the decorous into the indecorous, the lively interest into blind passions, a visionary dream to frantic and ungovernable longings, well meaning enthusiasts into trumpet-blaring, drum-beating street nuisances.

However this may be, a long list of physicians have declared their belief in the usefulness of music in diseases of the mind. Madness and other mental disease may arise from purely physical derangements. Now these physical derangements may be of the simplest and most trifling kind, but persistent and obdurate to all medical skill. "Mad-doctors," as the outside world irreverently styles them, tell us of instances where patients

have died victims of acute and frantic mania, and yet the autopsy did not reveal any malformation of skull or diseased state of the brain-substance. In such cases health depends on the resumption of the normal sequence either of biochemical changes or physiological activity. Some stimulus, a muscular shock, nervous excitement, or mental emotion is necessary. Here music is often useful.\* A martial air, a dance tune, attracts the attention of the patient, either owing to association of ideas or its intrinsic merits, and the music produces effects, if even only for a moment, which give rise to the desired functional action. From such slight events the whole history of a disease may change instantaneously and definitely.

Richard Browne tells us that he was daily enlisting the services of music in his medical ministrations. In his experience it was of greatest use in dealing with the mentally afflicted. He was in the habit of calling in its aid for the treatment of mania, melancholia, hypochondriasis, though he did not despise it when curing the gouty. To conjure away "melancholic shadows" and the deepest

\* Thomas Willis, M.D., Sedleian Professor of Natural Philosophy, Oxon. 1670.

seated vapours he had resort to the flute, harp or spinet. "Musick," he declares, "hath so transcendant a power over us as to raise or depress the passions of the mind, rouse or calm the motion of the spirits, according as the sounds, differently modulated, differently touch the auditory nerves. A brisk allegro may undoubtedly be of prodigious service in the cure of apoplexies, lethargies, etc." In an age when the madman and imbecile were treated with general callousness, often with positive brutality, it is a noteworthy triumph for Apollo to find this painstaking apothecary soothing the afflicted with "concordes of sweet sound." Though among the most methodical he was not, however, the only regularly licensed "minister to the mind diseased" who trod along the pleasant path.

Philip V. of Spain, suffered severely from melancholia, which nearly ended in madness. Court physicians' skill being exerted in vain, Farinelli, the famous singer, and a former favourite of the unhappy monarch, was sent for as a last resource. Being placed in an adjoining room to that in which Philip sat brooding in melancholy solitude, he sang many joyous songs. No result was perceptible on the first day; but, the experiment being



repeated, new songs being sung, and the hours of audience extended, the king showed symptoms of reviving attention ; he listened, and gradually became absorbed in the exquisite solo concerts. His interest grew daily, he became discriminative, and his attention being thoroughly aroused his cure became rapid and permanent. Our own George III., when suffering from his terrible fits of melancholia, received much solace from music. The king was well aware of this soothing effect on his nerves and mind, and would often ask for music when he felt the advance of his enemy.

Dr. Richard Brocklesby, who was a friend of burly old Sam Johnson, in his little book on curative music, speaks highly of its effects in delirium, melancholia, lunacy, and even frantic madness. " From the instances already mentioned of the power of musick on diseases of the body, as well as the raising or composing particular affections of the mind, and from a consideration that madness is usually attended with violent excess or defects of some of the natural passions, if not immediately caused by them, it is here submitted to the judgment of the philosophical physician how far the power of musick,

judiciously exerted, may be of service in maniacal cases. I own the presumption of its success in several of this kind first induced me to treat professedly on the subject, when I called to mind the few, and too frequently fruitless, attempts of physicians to restore such miserable wretches as are once unhappily confined in a mad-house . . . and therefore call on the friends of society to revive that ancient practice which was attended with such surprising salutary effects." Brocklesby had tested its use, and gives us several instances of cure.

He tells us : " It is related, in the memoirs of the Royal Academy of Paris, that a gentleman, eminent for his knowledge in musick, was seized with a continual remittent fever which on the seventh day was accompanied with a constant delirium, and loud exclamations of sorrow and fears, and continual watchings. Upon the third day of the delirium, the patient peremptorily insisted upon a concert of quick musick being admitted into the room wherein he lay ill. This the doctor with some difficulty conceded to, and, to his great surprise, as soon as the musick began, the patient's aspect appeared with its usual composure, the convulsions ceased, and

tears of joy overflowed his eyes, whilst he experienced a degree of pleasure unfelt either before or after, from the charms of musick ; and what was well worth attending to, his fever was entirely suspended while the concert lasted, but all the symptoms returned immediately when that was at an end. This unexpected event gave room to hope again for the same effects from a repetition of the musick, and upon trial the success was answerable to it, by removing both fever and delirium. Upon this account the patient obliged the person who attended him to sing and dance before him every night, by which means, in ten days, he was restored to perfect health.”\*

In yet another case, that of a dancing master, who “after too much fatigue fell ill of a fever, that in five days was accompanied with comatous symptoms, which afterwards changed into a mute phrensy, in which he continually strove to get out of bed, and threatened with his head and stern countenance all who opposed him, and in a sudden mood obstinately refused all remedies. In these circumstances Mr. de Mandajor proposed to try the power of musick, and by his

\* *Bul. de l'Acad. des Sci.*, Paris, 1707.

advice an acquaintance played an air, in audience of the patient, as he knew formerly were most agreeable. This unusual method, in the case of a dying man, passed not uncensured; but as it had happy effects, the objectors were soon silenced. For when the patient heard the musick he raised himself in agreeable surprise, and attempted to keep time with his hands, which being prevented by force, he continued nodding his head in expression of pleasure; and when the bystanders discovered this in him, they left him to himself, and after a quarter of an hour he fell into a deep sleep, and had, during his nap, a happy crisis.\* Thus we find the turbulent and disordered senses lulled into pleasing slumbers by the sweet ecstasies which sounds produce. And we find this practice in high repute among the best authors of antiquity." Du Bos wrote long ago: "Silence and darkness do not tend to calm an agitated mind, but soft and slow music has a fine effect." Jean Bodin, according to the English translation of his famous "Six Books of the Commonweal" (London, 1606), observes that melancholy madness was common in Germany, and was invariably

\* *idem*, 1708.

cured by music. Celsus held that the "melancholy insane may be relieved by symphonies, cymbals, and music. . . . A cascade falling near the patient induces to lull the senses to sleep." Common experience teaches us that music will often procure the calmness to a perturbed spirit, so much needed to allow of sleep and physical and mental rest. Many sufferers find it invaluable for obstinate insomnia. Dr. Chomet mentions numerous instances as having come under his personal notice and care. Dr. David Campbell advocates music, more especially for nervous and cerebral diseases, as it helps to calm and also accelerates the circulation of the blood, thus removing any over-pressure on the brain;\* in which recommendation Dr. Bourdelot of Paris had preceded him.† For these same reasons music has been recommended for apoplexy (\*); for fevers (nervous intermittent, and contagious) (†); hydrophobia (‡); venomous insect and serpent bites (||); for deafness (§); epilepsy, sciatica (¶); spasms and convulsions, hysteria and hypochondriasis,

\* *Disquititio inauguralis de Musices effectu in doloribus leniendis aut fugandis,* per David Campbell, M.D., Edinburgh, 1777.

† "Traité de Musique," par le Docteur Bourdelot, Paris.



anæmia, pulmonary phthisis (\*\*); and catalepsy (††) Steinbeck recommends its use for rheumatism and gout ; so does Dr. Chomet, who, moreover, conjectures that in these diseases it is a real specific, the musical "fluid," or "tone ether," passing through the affected parts just as an electric or magnetic current would do. Perhaps we shall not be far out in recognising the old-fashioned "spleen" and "vapours" of our great-grandmothers in our modern anæmia, "blue-devils," and hysteria. Richard Browne has many a word of comfort for these interesting martyrs: In treating of their cure he says, "I shall not descend into particulars, but only in general recommend singing and music, the good effects of which" are so truly marvellous and charming.

"The last thing I shall mention," says Brocklesby, "is taken from the Arabian, Abubethrus Rhayes, one of the best medical authors, in my esteem, that ever wrote. He commends musick to cheer the sinking spirits of pregnant women, and by this the babe unborn is much helped, and he declares

\* David Campbell ; † Brocklesby and Steinbeck ; ‡ Campbel, and Steinbeck ; || Campbell, Mead, Steinbeck, Grube, Baglavil Hoffman, etc. ; § Martinus, Capella, Campbell, Dr. Willis ; ¶ P. J. Burette ; \*\* Steinbeck ; †† Dr. J. R. Duval.

that the mother, by attending to this and the other regimen which he judiciously prescribes, may be freed of the numerous train of ills that usually attend the fair sex in this condition."

Dr. Jean L. Desessarts, Dean of the Faculty of Medicine of Paris, in a treatise on the curative power of Music, read before the National Institute of France in 1803, proves a warm advocate of music. He not only shows a wide reading of every medical authority dealing with this subject, but bases his belief on personal observations and long years of practice. In the crabbed and quaint professional phraseology of his day Dr. Desessarts thus sums up his views: "As the nerves govern the motions of solids, and consequently the action of those motions on the fluids, it ought to be understood that the nerves when moved, disturbed or agitated, communicate their state to the parts which they penetrate; that they thereby set them to work which belongs to their organisation, and give them the power of producing in the various humours that division, that fluidity, that course which prepare, bring on and accomplish a favourable crisis. Music by imparting to the nerves their life, which in

certain maladies is suspended or choked, restores the functions of vitality to vessels and tissues. It can, therefore, have a powerful influence on the secretions and excretions, and become a constant means of healing maladies that are called humoral, gastric, putrid or malignant."

Here, again, we find Richard Browne, as a forerunner. He made similar observations at an earlier date, declaring that "It is evident that if the strings of a fiddle be struck swiftly and boldly the vibrations of the air must of necessity be swift, short and bold, whereby the nerves will be briskly agitated and give a brisk and lively pleasure to the mind, which by sympathy will invigorate the motion of the spirits and communicate a correspondent sensation through the whole machine. On the contrary, by the soft, slow, languishing strokes of a fiddle the nerves will be so finely and delicately touched, and the sensation be so exquisitely pleasing and ravishing, as to cause the spirits to flow back in gentle undulations. . . . And thus it is evident that an allegro by short, quick and brisk impressions upon the auditory nerves communicates to the mind a lively sensation, fills the soul with gay and cheerful

ideas and surprisingly invigorates the motion of the spirits. On the contrary, the soft languishing trills and melodious strain of an *adagio* touch the nerves so finely and inspire such ravishing sensations, as that the soul by a sweet excess of harmony is ready to dissolve in pleasures."

The Guild of St. Cecilia, which towards the end of last century and the beginning of this, organised curative concerts for hospitals and asylums, played selected music and usually employed muted violins.

Of course, the music must differ more or less widely in each case, both in relation to patient and disease. As Steinbeck says musical effects depend greatly upon the age, temperament, and education of the individuals. For delirium we must have smooth pieces, the *dolce, piano, et pianissimo*,\* a soft and languishing *adagio* for mental and nervous excitement and certain forms of madness;† for morbidness, quick and variegated tunes, *allegro, galliarda, et spirito*‡ for the spleen and vapours (hysteria, spasms, etc.) an airy *allegro* is necessary;§ for apoplexy and lethargy (anæmia, etc.), a brisk *allegro*.§

\* David Campbell.

† Richard Brown.

‡ Campbell.

§ Brown.

And so on, according to symptoms, the susceptibility of the patient, and the effects aimed at.

Dr. Ewing Hunter, of Helensburgh, N.B., found soft music successfully reduced high temperature in some cases of fever, the greatest reduction obtained being two degrees, from  $101^{\circ}$  to  $99^{\circ}$ . These experiments were carried out in 1893.

So it was that Dr. Chomet advised his colleagues to: "Calm the irritable and nervous with sweet and soothing melodies; charm the biliously inclined individuals with short, airy ballads full of amiable gaiety; enliven the desponding; electrify the monomaniac." There is the complete philosophy of musical therapy in a sentence.



## CHAPTER VI

### MUSIC AND SURGERY

“ Music the fiercest grief can charm,  
And fate’s severest rage disarm ;  
Music can soften pain to ease,  
And make despair and madness please.”—POPE.

SURGEONS have advocated the use of soft and soothing music, instrumental or vocal, during the performance of painful operations. Army surgeons, indeed, have been known to adopt the plan ; notably some of the military “sawbones” of the Great Napoleon’s time. But in these cases we may be pardoned, and perhaps we shall not be far out, if we shrewdly guess that their partiality for the “sweet and ennobling art” arose from mixed motives. They probably found the practice useful in order to drown the cries and moans of poor fellows while under the knife, and subjected to the unavoidably hasty treatment following a severe battle. The “tusk-pullers” of old who frequented fairs and market meetings, and do so still in Italy and Provence, were equally ardent patrons of the drum and fife. Just on the same principle

the practisers of circumcision, during adolescence, in Africa and some parts of Asia employ "the stormy music of the drum" during their ceremonies.

In the byegone days of drastic measures, a goodly number of surgeons were especially in favour of music being played during blood-letting and cupping operations ; alleging that the rhythmic rise and fall of a tuneful melody communicated a healthy and much-to-be-desired activity to the pulse and whole circulation. And here we shall not, perhaps, be wandering very far out of our proper track if we stay a moment to consider the musical barber ; for, not so very long ago, the barber was a personage of much importance, quite apart from his hallowed office of gossip-monger. Originally the outcome of a mor-ganatic union of science and trade, the barber-surgeon of our ancestors held a position midway between the humble nature-curiers (herbalists, old dame-nurses, etc.), and the arrogant alumni of learned Faculties. In fact, the barber-surgeon was the recognised "saw-bones" of those days, and was entrusted with many important operations, more or less closely connected with health and disease. The last of these honours to which

he obstinately clung were blood-letting and cupping. Consequently, it is not without interest to find that these barbers were, as a rule, expert musicians ; true, often they only took up the "cittern," guitar, or flute to pass away the time agreeably, soothe their customers under the razor, or while awaiting their proper turn to be operated on. But such skill as the assistant or apprentice might possess was, without doubt, frequently called in request when the experienced barber-surgeon was deliberately drawing off his pint or two of blood, or delicately applying the cup.

Here we must look for the true origin of this singular institution of barber-musicians, of whom Edward Ward speaks sufficiently warmly, towards the close of the seventeenth century, in his "London Spy." When blood-letting was wrested from the unwilling hands of the humble barber of degenerate times by the restless apothecary and all-presuming, bewigged physician, the poor man still kept his musical instrument as a trophy of his "better days," and a means of amusing his customers. In many parts of the world, however, the barber-musician is still an actuality of the day. In Spain, Italy, and

Provence, Master Figaro and his whole tribe, constantly have the guitar, pipes or mandolin in their hands. We have frequently been "tuned" into good humour, coaxed into a patient mood, and sent on a pleasant dream-voyage in a barber's shop. At Bordighera, high up in the tortuous streets of that exceedingly picturesque and dirty old town, there used to be a barber who played the guitar with exquisite taste and feeling. Yet another tuneful wielder of the comb and scissors lived and charmed us on the Place du Cap, Mentone. On the Place du Marché, of Ajaccio, a very ancient Figaro kept a shaving-shop, which was often crowded to excess, but the customers never lost their tempers or became impatient, for a young fellow would beguile the tedium of long inactivity with delightfully quaint Corsican tunes or Italian operatic airs on the guitar.

Now this little excursion to sunny climes does not really carry us away from the medicine-man and his learned magic tricks; for, as most of our readers doubtless know, the barber in Spain, Italy, and even in some out-of-the-way corners of Provence, is still willing enough to let blood medicinally—if not with the lancet, at any rate by the

assistance of any number of leeches, which the man of the razor usually keeps in a glass globe filled with water and carefully placed in a cool corner, side by side with pomatums, hair-oils, decoctions of snails, and desiccated blistering flies.

On the whole, however, it is possible that even the most ardent admirers of music will be inclined to fancy music out of place in practical surgery ; for, even admitting its indirect soothing effects as very great, in this connection the application of music would be far more fraught with probable danger than possible good.



## CHAPTER VII

### MUSIC AT MEALS

. . . . "the song, from beginning to end,  
I found again in the heart of a friend."

LONGFELLOW.

VOLTAIRE satirically observed that people were in the habit of going to the opera in order to digest. Milton loved to play on his organ after dinner, "putting his soul in tune," and thus unconsciously pursuing one of the wisest medicinal courses that could well be devised. Music during, or immediately after, meals is, without doubt, of immense utility to the human system. Acting intellectually or emotionally, it produces pleasurable sensations on the patients, by giving rise to a calm enjoyment, which allows Nature to pursue her course unimpeded. Thus, the melancholy dyspeptic, unable to eat, and therefore naturally quite unfitted to endure the burthens of life, may, by aid of music, receive such a salutary stimulus as to cause physiological revolutions, prompting him to eat, and subsequently allowing the discomforted organs to resume their normal

actions ; digestion ensuing as a perfectly natural consequence.

This beautifully simple fact was well known and pretty generally acted upon by the ancients, musicians being rarely absent from their feasts.\* Sir William Jones speaks from personal experience of the vast benefits of light and agreeable airs after meals in warm climates. But we would recommend the employment of stringed orchestras in the East and West Indies, rather than too decided "doses" of military brass bands. Sir Thomas More, in his "Commonwealth," provided for music at the meals of every class in the model community. Indeed, Sir Thomas was a great believer in music, and being unfortunately united to one of the most shrewish of wives, "he persuaded her to play on the lute, viol, and other instruments every day," hoping thereby to soften her temper and manners. Unfortunately, we are forced to confess that the experiment was unsuccessful ; perhaps the philosopher had not taken all the necessary precautions.

As we have seen, Voltaire in splenetic contempt of the "beau monde" declared that

\* Plutarch affirmed that the flute could not be spared from the banquet chamber. "Its rich and full tones spread peace and tranquility throughout the soul."

people went to the Opera in order to help their digestion. Well, music at meals has been advocated on many grounds—light pleasure, higher aesthetics, and medical. Observed in moderation, it is good, especially as a poetical accompaniment to public and private gala banquets. Of course, there have always been, and are still, opponents to the practice of having music played or songs sung during meals. There are mortals who claim that dinner is the most solemn hour of the day, and such persons like to dine in stately silence—the only way, they claim, to ensure a thorough and intelligent appreciation of the good things of the table. They aver that no one can truly enjoy the masterly style with which an *entrée* has been concocted, the poetry of a carefully-matured and properly served wine, whose attention is distracted by a “concordance of sweet sounds.” But these thorough-goers object quite as strongly to intellectual converse or brilliant repartee. On the other hand, there are diners who, though they love a good cook and relish the results of his labours, yet opine that a dainty repast should be agreeably seasoned with rational discourse, and they affirm that no one can dine and listen to tone-poems

and at the same time take part in intelligent and bright conversation. No doubt, music would hinder the harangues of a professional conversationalist, and seriously upset the equanimity of pompous individuals enamoured with the fineness of their wit or inebriated with their own verbosity. But the man or woman who dines, loves to dally over the meal, to treat the hour as a season of rest, and to these, bright chat and homely discourse is far more appreciated than a set and more or less mind-straining discourse. To these happy individuals, luckily vastly in the majority, music hath charms indeed. It lightens the whole process of feeding, brightens converse, and while soothing the nervous system, affords charming breaks in the flow of talk and the task of eating, thus putting the diners, physically and mentally, in a mood conducive to comfort and recuperation. And one thing is to be noted, when the ancients prescribed a soft tune as the proper accompaniment of any formal meal, they were acting upon the result of observations and feelings which had a strong basis in physiology and psychology.

A profound truth lies hid in that world-wise old French proverb—*Ventre affamé n'à*

*pas d'oreilles*,—for there is an intimate connection between that essential part of gastronomy, the sense of taste, and the sense of hearing. It is a physiological fact that the main nerve of the tympanum ends in the centre of the tongue, and goes off to the brain, vibrating alike to sensations of taste and sound. Their relations are blended, so the connection between the joys of music and of gastronomy melt into each other. Taste is harmonised with sound, as though they were different expressions of the same thing. The one sensation completes the other, so that there is veritably no struggle, but a soothing blending which is eminently conducive to the physical well-being and the mental calmness of the individual who poetises the prosaic art of dining by an alliance with music. To eat and listen, to discriminate between the delicacy of flavours, and the values of tones and rhythm is by no means impossible; the processes, though dual, are naturally and closely allied, their unison bringing full appreciation and rest without satiety. The fact that Lulli was not the only pastrycook who was a musician, or Verdi and Rossini, not the only musicians who were admirable cooks, is thus explained, and serves to confirm



the sympathy existing between the pleasures of taste and of hearing. Thus, those sages of all times, who opined that music was the sovereign specific at once against gourmandising and indigestion, are justified by the discoveries of the anatomist, and the gloss of the physiologist and psychologist.

Practically, of course, there is music and music. All music is not suited as an accompaniment to dining, or, indeed, all instruments. The alliance must be one of inclination, and consummate art must be shown, not only in the choice of a programme but the composition of an orchestra, and its handling by a wary and sympathetic conductor. Music is protean in character ; it can kill as well as give life ; can madden as well as calm, and no conductor who values his reputation ; no restaurateur ambitious of retaining his *clientele* would neglect to take into account the necessity of caution, to so consider time and place, that the subtle processes may be charmingly harmonised, and the mortals who dine and listen may be sent away at peace with themselves and their neighbours. It is indisputable that wherever music has been enlisted to add to the pleasures of dining, there the public have flocked with a ready and

generous patronage. There is room for extension in this direction, especially during the season of out-door life, of green trees, flowers, and holiday-making ; and doubtless we shall find as time goes on that orchestral and glee dinners will become more general, and be found scattered up and down the country. To the public this will bring fresh pleasures of a harmless, and, indeed of a really beneficial kind ; while to the professional musician, who often finds the ranks of professional circles inconveniently crowded, it will afford another outlet for his energy.

Music at meals is appreciated by the public ; it is gastronomically and physiologically beneficial, and it only requires discretion and enlightened enterprise to become common instead of rare, and thus help in bringing brightness and merriment into public life, by giving us a pleasure which tends to soften the asperities of daily intercourse.

## CHAPTER VIII

### CURATIVE VALUE OF SONG

“An admirable musician! O, she will sing the savageness out of a bear!”—OTHELLO.

“Sweet are the pleasures that to verse belong,  
And doubly sweet a brotherhood in song.”

KEATS.

It is a time-honoured maxim that we should “laugh and grow fat” to preserve ourselves against many of the ills to which man is heir. But long before this the “medicine man” had sought the aid of song quite apart from instrumental music, not only to evade but to combat disease. In the old world of Greece and Rome, in the ancient civilised communities of Asia, as well as in savagedom in every quarter of the globe, singing has been cherished by those who sought health and happiness. And so thought our ancestors, for the physicians of centuries gone-by advocated singing to strengthen the body and to cure mental and physical maladies. Modern authors, without going into some of the extravagances of old writers, have, on the

whole, amply corroborated the ancients. Indeed, we might almost say that the healthful, the physiological value of singing is even more than ever held in high esteem by sagacious physicians.

And certainly sober consideration shows us that singing, quite apart from its more or less disputed claims to intrinsic merits as a means of improving the circulation and "accelerating the vital activities," undoubtedly strengthens the chest and the throat. By a purely mechanical process it expands the chest, puts an end to any vicious habit of breathing (through the open mouth, instead of the nose, for instance), and mightily helps us to build up strong bodies in other directions. It is certainly remarkable that pulmonary and chest complaints, as well as catarrh, are rare among singers. Indeed, there are some physicians who say that singing is not only a preservative against chest complaints, by training children to sing when young, and thus fortifying chest, lungs, bronchia, etc., but may actually be used as a curative. They would, therefore, treat affections of the chest, lungs, bronchia and larynx, if not too far advanced, by a systematic course of singing; just as some doctors

cause patients with certain phases of heart weakness to commence regular exercise ending by a gentle trot up a steep hill. Some authorities assert it to be equally efficacious for jaundice, liver complaints, and indigestion.\* If so, then in these latter cases, we must, of course, look upon singing and music as merely indirect remedies, acting by virtue of their power to accelerate the circulation, promote freer breathing and regular digestion, etc. For mental affections, singing is a time-honoured means of alleviation. We no longer look upon it as a panacea in such cases, but no one could question its utility in the treatment of melancholia, hypochondria, and some forms of hysteria. Some remarkable instances have already been cited.†

It is capable, too—so the specialists tell us—of improving the general health of children and adults, even to the material increase of power in extracting the nutritive elements of food, and facilitating digestion. This is easily explained, and an old writer on the medicinal value of music does this for us.

\* Chomet, Richard Browne, etc.

† Also consult "Dramatic Singing Physiologically Estimated," by Walter Hayle Walshe, M.D., London, 1881.



“ When the tone of the stomach is relaxed,” says he, “ and we thereby find a remission of the appetite and digestion, singing will very much contribute to the cure, as it causes a plentiful influx of spirits and by them restores the spring and elastic force of the muscular fibres, and increases the action of the diaphragm and abdominal muscles.” This is the reason physiological. Mr. Lennox Browne supplied us with the reason chemical for increase of appetite. He said, the act of singing, as involving full, deep breathing, voice exercise, leads to considerable oxidation of body tissues and therefore occasions hunger.

This deserves a long reflective pause. A judicious visit to the pianoforte or banjo means nothing less than an enjoyable meal and a happy after-hour. Perhaps this fact may also afford us a rational explanation of the objections manifested by a certain class of schoolmasters to boys yelling and shouting in the playground. Dire experience having taught them that vocal activity bodes no good to their larders, they ruthlessly taboo singing and “ungentlemanly shouting.” Anyhow, it is suspicious that until recently in French colleges and lycées, where the utmost economy was *de règle* in the refectory,

the *pions* invariably endeavoured to put down with a high hand any manifestation of extraordinary vocal capacity in the playground. It is true, a liberal dose of *La Marseillaise* was permitted on festive occasions, but probably other motives prevailed here. Seriously, however, the masters of our cathedral choir-schools are unanimously agreed that their boys eat much more than the average youngsters of the same ages. Thus, at all events, singing seems to have one very decided result ; a result which, perhaps, should be taken more seriously into consideration in the training of city-bred children, as one means of obviating certain evil effects attaching to town-pent lives. The digestive qualities, too, of music and singing, as we have seen, have been vouched for by ancients and moderns. So we are glad when we find that fashionable society has high authority for "music" after dinner. Eccentric objectors and ursine grumblers are in opposition to Plato, Socrates, Aristotle, More and Milton, to say nothing of flourishing physicians of our own days. Let them listen with grateful patience. Their digestion will be benefited, and they may even get up an appetite for supper.

Certain ambitious authors are even anxious to claim singing as a means of cure or preservative against obesity. But this is hard to believe, especially when we reflect on the *physique* of certain very popular *prime donne* and masculine operatic favourites.

In Greece children were educated by singing ; they imbibed most of their knowledge through its agency ; and they learned to read and declaim in a rhythmical sing-song. Though possibly he was totally unaware of the interesting physiological and chemical processes going on within him, while thus oxidising his internal economy, this system may have caused the Spartan boy to devour his mess of black porridge with all the greater zest. Other pedagogues also swore by music. Richard Mulcaster, that learned schoolmaster, who flourished under Queen Elizabeth, and to whom we all owe so much for his noble defence of the English language in an age when the mother tongue was considered "vulgar," advocated the teaching of singing. We find "in our experience," says he, "that it stirreth the voice, spreadeth the instruments thereof, and craveth a clear passage as it also lighteneth the labourer, and increaseth his courage in carrying of burdens." Of

course, the classical headmaster of the old Merchant Taylors' School strengthens the position he takes up by quoting the ancients. "It is wonderful," he goes on to say, "that which is written and strange that we see, what is wrought thereby in nature of physick for the remedying of some desperate diseases.

. . . The philosophers and physicians do allow the straining and recoyling of the voice in children, yea, though they crie and bawle (a shrewd hint this, to parents of the incidental benefits, arising from the free exercise of one of the most active functions of a sixteenth century schoolmaster) besides their singing and showting, by the waie of exercise to stretche and kepe open the hollow passages and inward pipes of the tender bulke, whereby music will prove a double principle, both for the soule, by the name of learning, and for the body by the waye of exercise." This is now pretty generally recognised. In the United States of America, the principle has been almost universally adopted. At Harvard College the teaching staff and students resolved, many years ago, that music was "entitled to her representative in every temple of science. Her genial presence should be felt in every nursery of young minds."

In the grammar-schools of Boston, and many other cities of the States, vocal music has been made a part of the usual educational course. In Germany, and, indeed, on the Continent generally, educational vocal and instrumental music is far more commonly called in during the instruction of youth than it is with us. We, too, are now beginning to actively put in force these grand old theories. From the Council Schools to the great Public Schools, singing is more or less looked upon as an aid to mental and physical culture and well-being. Thus, we have done something of late to remedy our backwardness, but much still remains to be done in this direction.\* M. de Laprade says : “La musique confine aux mathématique et le rattache à la géométrie.”

The voice has ever been considered as a safe index to individual character, much in the same way as national music is held to be a gauge of the real state of popular sensibility

\* That the ancients fully understood the importance of music we see by the educational course of Greek youth :

I.—THEORETICAL.		II.—PRACTICE.	
1st	$\left\{ \begin{array}{l} \text{Arithmetic.} \\ \text{Physics.} \end{array} \right.$	Composition	$\left\{ \begin{array}{l} \text{Rhythm.} \\ \text{Melody.} \\ \text{Poetry.} \end{array} \right.$
2nd	$\left\{ \begin{array}{l} \text{Harmony.} \\ \text{Rhythm.} \\ \text{Metrics.} \end{array} \right.$	Execution.	$\left\{ \begin{array}{l} \text{Instrumental.} \\ \text{Vocal.} \\ \text{Dramatic Action.} \end{array} \right.$



and morality. It is undoubtedly a fair guide to the passions of people, and when emotions are strongest it is regulated in cadence with a wonderful range of tone and pitch. We may habitually talk calmly and colourlessly enough, but if we excite ourselves then perforce we must sing. Evidently, to guard against awkward betrayals, if for no other reason, the cultivation of the speaking and singing voice should go on step by step, with the intellectual and moral training. "A pleasing and soft voice," says Sturm, in his "Reflections," "tuned to the language it utters, is irresistible, and we often, from the tone of the voice, judge of the temper of the mind. Let us then, since experience teaches us this pleasing gift may be improved by attention, spare no pains in its cultivation."

Indeed, we may conclude that the voice is fully as worthy of careful training as the eye, the ear, or the hand. Grétry would frequently observe: "Un bonjour we suffit presque toujours pour apprécier en gros les prétentions ou la simplicité d'un homme."

## CHAPTER IX.

### SINGING IN SCHOOLS

“Bright Cecilia raised the wonder higher,  
When to her organ, vocal breath was given,  
An angel heard, and straight appear'd,  
Mistaking earth for heaven.”

DRYDEN.

THERE are so many factors in modern civilised communities to hamper the symmetrically healthy growth of children, that any means affording possibilities for combating certain evils surrounding them in crowded cities is worthy of investigation. No doubt, of late, the physical side of education has been recognised, and much has been done to develop the weakly frames even of city-slum-bred urchins. We have, too, re-introduced singing as part of the work in many schools. But might we not go further ?

As the scheme printed on a preceding page shows, in ancient Greece singing was regarded as the link between mental and physical training. It was not only a key to arts and letters, but a physical exercise which helped to prepare the orator and the warrior for their

duties. It was recognised as a means of awakening the mental faculties and of developing the physical powers ; in fact, of harmonising the different branches of education. A man or child who could neither sing nor swim was an *ignoramus* to be pitied or mocked. When another civilisation arose on the ruins of the old world, singing lost some of its importance, yet it was a very real power in mediæval social economy. Though he might not be able to read or write, the page and the squire paid particular attention to the training of the voice : song was, indeed, often the sole means of transmitting historical traditions outside the narrow clerkly circle. Later on, singing rounded off the education of the gentle-folks, and brought a ray of joyful light into the lives of school children. Choral practice and glee-singing brightened the lot of the peasant and the craftsman, but a utilitarian age viewed the matter more narrowly, and without inquiring deeply into the question, music grew gradually to be looked upon as a pleasant accomplishment and "embellishment," but as having little intrinsic value outside professional limits. This is a wrong view, for singing is full of potentialities, mainly for good. It is

impossible to ignore the fact that children manifest a great pleasure in singing, and a great interest in musical training, apart from some technicalities. The singing lesson is a lever of joy in the too dull round of school work. This in itself is much in its favour.

Of its beneficial effects on the physical growth of children there can be little doubt, notably in strengthening the throat and expanding the chest. In order to obtain additional and definite information on these points, some two hundred circulars were sent out to heads of choir, primary and other schools, requesting answers to sixteen questions. The replies sent were decidedly in favour of singing as an aid to physical and mental development. Correspondents were all men and women of large experience, having under training from eleven to forty boys in choir schools, and from fifty to 450 boys or girls in primary and public schools. The circulars state that the ages range from seven to nineteen in choir and public schools, and from seven to fifteen, and four to seventeen, in primary schools. The health of the children is generally stated to be good. This is especially interesting as regards choirs, though it must be remembered that boys

elected to such schools have undergone physical examination and selection, the weak ones being rejected. Still, observations extending over a wide area and many years point to the fact that even exceptionally long hours devoted to singing in no way fatigue the boys, though in some cases choir children seem at first to be rather more liable to slight colds and sore throats, which may probably be attributed to a little over-exertion.

As regards the age at which training should begin, opinions differ. In primary schools, where the training is, of course, not of a very strict kind, and really consists of training the the ear and merely regulating the use of the voice, teachers like to begin early, even from four to five. Mr. Wm. Clark, of St. Thomas's Charity School—which has always been a musical centre in S.E. London—is decidedly of opinion that judicious training cannot begin too early; he says "five years, at which age they begin singing at Board Schools: if they begin at three, so much the better." Another correspondent, Mr. F. C. Field Hyde, L.R.A.M., speaking from the fulness of his experience in training some hundreds of boys and girls—from five years upwards—in middle and upper-class schools,



and private pupils, says, " I have had numbers of young pupils in classes, from five years, and have seen somewhat surprising developments of ear through commencing early, even amongst children who at first seemed to have no ear. This has been in classes and individuals, learning sight-singing by tonic-sol-fa. As to actual voice training, little can be done beyond guarding against forcing and getting flexibility. Children—i.e., musical children, will sing, and very much benefit may arise in after-years from their being early taught the proper use of the voice and how to avoid its abuse." The head master of a large Board School said, " the younger the better ; but the younger they commence the greater the care required, or their voices become thin and harsh. The younger they are the shorter the practice should be, and the compass should be short. A child under six or seven should not be allowed to sing more than an octave. You can see but little improvement until seven or eight, then one can commence in earnest." For the more serious work of choir singing the ages selected for commencing are from seven to eight, or eight to ten.

Dr. R. R. Terry, organist and choirmaster of Westminster Pro-Cathedral, thinks the

best age is from nine to eleven. He generally finds eight too young, excepting in the cases of advanced physical development. Mr. C. H. Moody, of Ripon Cathedral, thinks from eight to nine years. Dr. G. J. Bennett, organist of Lincoln Cathedral, says commence at eight years, but prefers taking them a little older, between nine and a half, and ten and a half. Dr. Bairstow, of York Minster, says eight years, or as soon as they can read English fluently.

Intimately connected with the question of age is that of the system adopted, and here all agree that the training should be careful, graduated, and unrestrained. In the earlier stages the attention should be mainly directed to correcting bad habits of breathing. At the St. Clement's Road Board School, Notting Hill, where there were over three hundred children, coming from a sadly poor and overcrowded neighbourhood, the headmaster, Mr. E. J. Fooks, stated that the children had a "brief gymnastic exercise, followed by the singing of school songs," and this gives excellent results. In ordinary schools, gymnastics and singing lessons should really be regarded as the complement of each other. Another teacher in a public

elementary school judiciously points out that care should be given to the position of the body, head, and throat, while forcing should be strongly opposed. As the age advances individual attention is necessary, for with an elaborate or hard-and-fast "system" much harm may be done. At first the exercises should be as simple as possible, and so arranged as to ensure the getting of pure tone, etc., the avoidance of common faults and prevention of bad vocal habits.

In answer to the question as to training, Dr. E. C. Bairstow considers that boys have no true chest register until just before their voices break, and even then not always. The thing that goes by the name of "chest voice" is the medium voice, as in women, but badly produced. When the medium voice is properly produced, it goes as high as D on the third line, or even E flat. He has had boys who could sing F in it without trouble. It is fatal in teaching them to talk of "voice" registers or breaks, or these things will appear when they should disappear, or never have appeared. Let the voice be properly produced, and there will be no necessity to mention the subject.

Dr. Bennett allows his boys to sing in the

“chest” register to about A, the second space of the treble stave. Mr. C. H. Moody never uses the “chest” register in the boys’ training. Dr. R. R. Terry trains his boys downwards, aiming at eventually securing such even tone that the ordinary listener recognises no break between the so-called “chest” and the so-called “head” voice.

Dr. J. Varley Roberts, of Magdalen College School, Oxford, says, “Sing the chest register softly ; break as low as possible ; sing well out, the upper or head register.” This care and moderation is very necessary for, as the late Dr. E. J. Crow, organist and choirmaster of Ripon Cathedral, points out, “much of the mischief with boys’ throats results from the teacher not noticing the gradual fall in the pitch, so that the various registers are kept up to their old pitch by force. The sinking of the voice goes on from childhood till the actual, so-called, breaking of the voice.” With these precautions, singing tends to strengthen the vocal organs ; most of the correspondents found throat affections among their pupils rare, but the choir-master of St. Alban’s Abbey says that a warning against overtaxing the voice of young children is necessary, and the headmaster of Uppingham

School points out that great harm is often done both to the singing and speaking voice owing to neglect of precautions at the period of mutation.

Twenty-seven of the correspondents stated that they had noticed improvement in children with weak chests while under tuition. Mr. William Shakespeare is among these, he regarding good singing as of distinct value in strengthening throat and chest weakness.

Dr. R. R. Terry thinks that when the boys are taught to produce their tone properly, the more they sing, the better it is for their health. Properly trained boys could sing all day without fatigue. Improperly trained ones become fatigued in a very short time. As William Byrd saith: "It (singing) doth strengthen all parts of the brest, and doth open the pipes." Mr. C. H. Moody says that if properly trained, the daily use of the voice cannot be other than beneficial. Dr. Bennett has never known a boy's health suffer through singing in a choir.

Mr. William Mann, Precentor of Bristol Cathedral, having noticed in several cases that weakly boys, if well-fed, expand in chest and get robust, declares himself to be "a strong believer in the value of singing as a



preventive measure against phthisis." Three reports of special interest for our investigations come from headmasters of elementary schools for the poorer classes. Mr. J. S. Edward, of the Princess Road Board School, Croydon, answering the question whether singing does not strengthen the throat and chest, said, "Yes, I believe a few boys I have had owe their present state of health to the fact that they have gone in for voice training." Mr. E. J. Fooks, of St. Clement's Road Board School, Notting Hill, "The one hour taken weekly has probably little effect. Balance, however, in favour of chest development." Mr. Wm. Clark, of St. Thomas's Charity School, London, S.E., answers the question thus: "Decidedly yes. The throwing back of the arms after taking a deep inspiration, held for a few seconds before beginning voice exercise, brings good results." Dr. M. J. Monk, of Truro Cathedral, whose work lies in a district peculiarly trying to the throat and lungs, says that general physical development is "advanced: singing develops the chest, provided no latent disease be present; and the strengthening of the chest generally means the development of the whole body. . . . It is quite remarkable how puny, thin voices

turn out strong, round and firm after two or three years' training, often to the great surprise of the trainer." Most observers agree that singing is useful even when disease is present, provided it is not too far advanced. Dr. J. C. Culwick, of the Chapel Royal, Dublin, says "In cases not very pronounced a boy finds singing beneficial." Dr. J. Varley Roberts also agrees that "careful training will do much to strengthen a weak chest." To which we may add the opinion of Mr. J. M. W. Young (Lincoln Cathedral), that "singing invariably strengthens the chest and throat and develops the lungs."

The consensus of opinion seems to be that general physical development is advanced by singing. The Rev. G. Warburton Rooke, of St. Caiuce's Cathedral, Kilkenny, speaking from a wide experience, gathered during seventeen years superintending the choir boys, and referring to a complete list of 104 boys who were trained during that lapse of time, says only two of them died, and two in early manhood. Of course, this refers to selected candidates. Mr. F. Gudgin, of the Sydenham Board School, has noticed beneficial effects. Mr. Oliver Breden, of St. Mark's College, Chelsea :

“A proper mode of breathing must develop and strengthen the lungs, and so improve the general state of health.” Mr. J. Wisenham, Oozells Street North Board School, Birmingham: “Physical development decidedly advanced. Learning to breathe properly must assist in this.” Mr. Basil H. Philpott, of the Chapel Royal, who has also a wide experience, and who has charge of four classes of boys in schools (of about forty each) writes: “From my choir boys I can say that they are rarely absent because of illness, they certainly show no sign of weakness of the chest or lung disease. I have often remarked that singing regularly has benefited boys who had weak chests, and such boys have sometimes been put under my care for that very purpose.” The fact of the matter is that singing has a two-fold influence here. We have first the mechanical action. Deep breathing necessarily inflates the lungs and expands the chest, and the exercise, like all efforts when not overdone, tends to strengthen the parts brought into play. The muscles of the chest and abdomen are given plenty of work. The head is thrown back, and the respective uses of the mouth and nose as breathing machines are practically demon-

strated. In this way many vicious habits can be cured, to the great benefit of the child, for there is no room for doubt that certain diseases are fostered by defective habits of breathing, and abuse of the speaking voice. This comprehensive mechanical exercise causes an acceleration of the blood circulation. By placing a finger on the pulse of a child it will be clearly seen that singing has an immense influence on the circulation. Now a healthy flow of blood is one of the objects we should aim at, as it tends to the more equal and thorough nourishment and cleansing of the whole system, thereby helping to keep the body healthy and warm. Then we have the second action. A greater amount of air is inhaled, and the lungs being fully expanded the network of capillary vessels can more freely absorb the oxygen, which aerates the blood and "burns" the impurities with which the life fluid pumped up from the heart is charged. The blood, therefore, flows back purified and sparkling clear with the imprisoned oxygen. The power of inhaling requires to be increased, notably among city children. Mr. Robert Race, of St. Luke's Board School, Manchester, says : " As regards its influence on health, one fact seems

to be often forgotten, *viz.*, that while singing is accompanied by increased inspiration, it is very vitiated air that is inspired." This, of course, points to an evil that is very great in most cities, especially among the poorer classes. Nevertheless, it is not a valid argument against deeper and more powerful breathing. The more air taken into the lungs the greater amount of oxygen will be available for absorption, and the stronger the organs of respiration and the lungs, the better will they be able to cope against the evils of atmospheric contamination.

One proof of the beneficial physiological influence of singing is shown in the improved appetite and power of digestion among trained children. It may be said that we should endeavour to fill the stomachs of already hungry children rather than increase their appetites. But we are here dealing with broad questions of bio-chemics, and cannot doubt that the keeping of the appetite in a healthy condition, the facilitating of digestion, and the increase of the power of nutrition must benefit the race, especially as the conditions of modern city life tend to weaken the stomach and digestive organs. The Rev. W. Russell, headmaster of St. Paul's Cathedral



Choir School, in reply to questions as to the appetite and digestion of his forty boys, says ; " On the whole, decidedly good, considering they live in the heart of the city and get comparatively little outdoor exercise." This is just the point necessary to illustrate. " Singing always makes boys hungry ; " says Dr. Joseph Bridge of Chester Cathedral. " Singing is certainly appetising," is the opinion of the late Professor Philip Armes, of Durham, while another well-known trainer finds his boys in a truly proper condition ; they have " the appetites of horses and the digestions of ostriches." We have here the double action, the mechanical exercise of the muscles of the abdomen, throwing back of the head, and deep inspiration, while the increased amount of oxygen absorbed improves the blood and give a fillip to the whole system.

Coming to the mental aspect of the question, more debatable ground is approached. Many philosophers hold that music is purely emotional, and not intellectual. Such a dogmatic statement hardly seems philosophic. It is difficult to draw such a hard-and-fast line of demarcation. As we have had occasion to point out elsewhere, psychologists seem

now agreed that rhythmic chanting is a natural instinct with man. And more than this, for primitive music is an unconscious manifestation of the mathematical faculty, being based on variations of time measurements and pitch. Primitive races and children make use of music to attain certain ends—concentration and co-operation. The reason is merely that music is the audible and most easily grasped symbol of time measurement, a co-ordinating force. In other words, it is audible mathematics; the two are merely different expressions of the harmonic laws which underlie all natural phenomena. The appreciation of these laws of harmonics seems to be innate with all living creatures. Professor Sir Wm. Ramsay, F.R.S., when experimenting on himself with chloroform and ether, found that before becoming actually unconscious his mind was filled with an idea of the immense importance of harmony: he heard two harmonic musical notes that seemed to take complete possession of him; then his eyes traced out the harmonic proportions of straight lines, bars across the windows, bars of the firegrate, or of the four lines of a table: finally, he saw an anatomical figure dancing with

rhythmic grace. The mathematical exactness of sound, of pictorial—or of time—measurements seemed to be the absorbing question during the early stages of this curious mental state. Many people in dreams take to counting, to witnessing mazy dances, and trooping by of figures, etc., or see an endless kaleidoscopic array of geometrical patterns while, to some favoured individuals, harps measure time with musical harmonies. But to most, music possesses a power of systematising. Thus the fact that in listening to music we are consciously or unconsciously setting our mental faculties to analyse its arithmetical arrangement and value, must have a healthy effect on the brain. It naturally trains the mind, and with many fosters a taste for the beautiful, and opens up a vast field for intellectual enjoyment. On the whole, therefore, it is not surprising that most of the correspondents agree that singing develops the mental faculties. Teachers in elementary schools seem convinced of its beneficial effects in his direction. Dr. Bennett opines that boys' work at a Cathedral undoubtedly takes a considerable part of their time, but thinks that with good management, it can be arranged that their general education

does not suffer. Mr. C. H. Moody says that if the boys of St. Michael's College, Tenbury, are typical, it would be safe to say that music is an aid to general education. Dr. R. R. Terry always finds that the boys who show greatest intelligence in their musical training are also the best in general school work.

Mr. Wiseman, of Oozell Street Board School, Birmingham, a very poor neighbourhood, where some 300 children enter and leave every year, says, "Decidedly, yes." From St. Clement's Road Board School, Notting Hill, another decided answer is given, the headmaster justly pointing out that "the very fact of having tackled and mastered difficulties (in learning and performing more elaborate music) has improved the boys generally and particularly as regards mental and emotional perception." "It develops powers of attention and order," writes one: "the perceptive first, perhaps, then the reflective," writes another. Mr. Edwards, of Croydon Board School, thinks, "the mental faculties are slightly developed. The more theory we give the more development." There are some who do not agree with this. One particular correspondent writes, "I question this: so many good musicians are fools

otherwise." There is no contradicting this. But are they not rather the exceptions? And may we not attribute their state to the fact that with them the musical talent has been trained at the expense of other faculties? Undoubtedly, the study of music to those with true artistic perceptions is very engrossing, and if due proportions are not observed, will overshadow all else. That, however, may be artistic or professional training : it is not education.

The question whether singing developed the emotional faculty seems to have raised something like a storm. Some correspondents are indignant at the mere suggestion that boys can be emotional. Of course, it will not do to develop this talent and growing faculty too much. But imagination and emotion are closely allied, and most amiable qualities spring more or less from emotional perceptions. Those who respond merely to intellectual or lower sensuous stimuli are equally one-sided incomplete beings.

Dr. Terry (Westminster Pro-Cathedral) certainly thinks that "boys can be taught to sing with genuine emotion. They respond readily to the expression of such emotions as are within their own range of experience—



joy, sorrow, sympathy, tenderness, hatred, defiance, religious fervour. Passion lying outside their experience, they are naturally deficient in expressing its storm and stress." Mr. Moody of Ripon, considers that "expression can be imparted by the teacher, but his long experience has proved that the healthy boy is not—thank heaven—emotional."

Dr. Bairstow (York) thinks that "such expressional results depend on the teacher. If his emotions are stilted or locked up, or covered with a veneer of affectedness; or out of control, he will never teach others that subtle control of emotion, and the art of directing it at will into the right channels, so essential in singing." Dr. Bennett (Lincoln) states that "the average boy cannot sing with genuine emotion. Unless a boy has a natural instinct in this direction (and these cases are few and far between) he thinks it is a very difficult subject to impart to them. At the same time, sufficient can be done to prevent their singing being colourless."

The want of imagination and affection is a very real difficulty in dealing with the so-called "submerged tenth." It is noteworthy that teachers in elementary schools speak of the awakening of the emotional faculty as

a beneficial result of education. This is a question, however, which necessarily wears a different aspect according to the standpoint of the investigator. The home training of the children of the poor and those of the better classes makes all the difference, and where one requires stimulus, the other will rather stand in need of restraint. Therefore two very distinct classes of replies have been sent under this head : the elementary teacher looks for a mild stimulus to awaken atrophied faculties, while those in public and choir schools seek rather to arrest, or at all events, retard development. To a certain extent here, then, there will be a divergence of methods and also in the choice of music. The Rev. W. Mann, Precentor of Bristol Cathedral, writes : " I am quite sure of its educating power with the emotions," and if we lay stress on the words 'educating power' we shall get at the crux of this difficulty. Mr. Edward, of Croydon Board School, says : " The best singers here are decidedly the most emotional : a word to them is greater punishment than a blow to those who are not musical." When we come to more advanced teaching and are dealing with certain natures, greater care is needed. In connection with

this aspect of the question, it will be as well to quote the words of the music master of a large London day Public School. "Our music is, as it should be, a branch of education. Solo singing of children is almost non-existent, though they practise all kinds of chorus music. The great danger of the thing is the way solo boys are rendered conceited . . . any unnatural development of emotional faculties is nourished in this process until it often tends almost to a boy's destruction. Music should be to my mind, entirely of a healthy, sensible character, and no boy suffered to spoil himself with his own conceit because he has a pretty voice." These are weighty words, and the three last quotations read together sum up the matter.

The question, "Is any difficulty experienced in keeping up the boys (who have singing lessons) to a proper level in their general education?" brought forth many interesting replies: the majority stating that music was rather a help. Here are a few of the most suggestive answers. The Rev. W. Russell (St. Paul's Cathedral Choir School): "Examinations prove that they are not much behind other boys of a similar age, although they get much less time for general subjects."

Rev. W. Mann (Bristol Cathedral) : "Several of our eldest choristers are near the top of the Cathedral School of 120 boys. I think, under certain conditions, musical exercise is an aid in training the mental faculties." Mr. John M. W. Young (Lincoln Cathedral) : "No difficulty. Once I stated to the late schoolmaster of the choristers that I considered singing to be a splendid mental training, to which he replied, 'What you say is quite true, for your choir boys who get three hours less schoolwork than the other boys in the school, are always at the top of their classes.'" Dr. M. J. Monk (Truro Cathedral) "My choristers all have scholarships at the Grammar School, and no difficulty is experienced." Mr. F. C. Woods (Exeter College, Oxford) : "Several of my boys are really well up in their respective day schools." Dr. J. Varley Roberts (Magdalen College, Oxford) : "They generally excel ; get exhibitions. Magdalen College School is a Public School. There are nearly one hundred boys, and the choristers do much more than hold their own in the general education." Dr. P. C. Buck (Harrow) : "Rather the contrary ; their wits get sharpened." The late Dr. E. J. Crow (Ripon Cathedral) :

“They learn concentration—minute things are so important in music; and this habit goes through their other work.” Mr. J. S. Edward (Princess Road Board School), Croydon: “No, they are the boys who generally take more interest in their work.” This last is an important statement, and one which seems to be generally borne out by experience, the children take a pleasure in the singing and so brighten up wonderfully.

Perhaps the most overwhelming evidence is supplied by G. Arthur Scaife, Head-master of the York Minster Choir School, who furnishes the following interesting answer to the question, “Are Choir Boys more or less generally intelligent on account of the extra time given to music?” He submits first the allotment of the Choir Boys’ day at York; then the results of fourteen years’ work; and finally the general conclusions drawn from actual experience:—

## I.—THE DAILY DUTIES.

### PRACTICE AND SERVICES.

Choir Practice	8.45 a.m. to 9.45 a.m.
Mattins	10 a.m. to 11 a.m.
Evensong	4.30 p.m. to 5.30 p.m.
Total, 3 hours.	



## SCHOOL HOURS.

Morning School	-	-	-	11 to 12.30
Afternoon School	-	-	-	2 to 4.15.
Total, $3\frac{3}{4}$ hours.				

Wednesday being holiday, the weekly total works out as follows,

CHOIR PRACTICES AND SERVICES.=Five days of 3 hours, plus 4 hours on Sundays=19 hours.

SCHOOL HOURS.—Four days of  $3\frac{3}{4}$  hours plus  $1\frac{1}{2}$  hours on Saturdays= $16\frac{1}{2}$  hours.

The average *school time* of the ordinary boy would be  $27\frac{1}{2}$  hours per week. It will therefore be seen that the cathedral choir-boy gets only about 60 per cent. of the time usually spent at school.

## II.—RESULTS.

The following is a summary of the Choir School results at York during the past fourteen years :—

SUCCESSES IN EXAMINATIONS FROM EASTER  
1903 TO EASTER 1917.

Two hundred and thirty-five successes have been gained in

Trinity College of Music, London	} Exam- inations.
Durham University .. ..	
Civil Service .. ..	
College of Preceptors, London	

There have been no failures.

This total includes :

Thirteen “exhibitions” gained in the Theory of Music ;

One “Associate” Diploma in Pianoforte Playing ;

and the first place in “Honours” in the College of Preceptors, London, “Certificate examination” for three consecutive years, including “Distinction” in eight subjects (the maximum number) on two occasions.

### III.—CONCLUSIONS DRAWN.

Of the practical results of vocal music to the choir-boy bearing on the question above stated, the following characteristics are prominent :—

1. *Confidence*.—He learns to act for himself, not depending on others.

2. *Accuracy*.—This is absolutely necessary in singing, and hence tends to make him critical in his school work.

3. *Sense of Duty*.—He is a good worker ; he knows what he has to do, and *does*.

it. This has been strikingly seen in the present war by the ready response made by York Minster "Old Boys" and by their proving—"Greater love hath no man than this, that a man lay down his life for his friends."

4. *Physical fitness*.—The great amount of standing and kneeling at practices and services, and the short time possible for recreation and games are drawbacks in the life of a choir-boy, and tend to make him less robust than the average school-boy.

It is true that with some children (more particularly some choristers) singing becomes merely mechanical, having little influence one way or another. But this seems to be exceptional. Mr. F. Gudgin (Sydenham Board School) finds that the children take more interest in singing and music "than in most branches of their study." Mr. J. Wiseman, (Oozells Street Board School, Birmingham) finds that even children drawn from a difficult floating population in a poor neighbourhood (most admissions being direct from the street) "look upon singing and musical study as the brightest and pleasantest work in the school." Mr. Robert Race (St. Luke's

Board School, Manchester) writes "I may say that singing in schools contributes so much to the cheerfulness and happiness of the children that it is a most valuable educational adjunct." Mr. Race is right, cheerfulness and happiness is of immense service in educational work, a fact which comes out prominently when dealing with the children of the poorer classes. Music and singing seems to lift the children out of themselves, into a new and higher plane of thought and feeling. Miss Charlotte Mulligan, of Buffalo, U.S.A., in a paper on "Music as a factor in Philanthropic Work," read before the Musical Congress at the World's Fair, Chicago, gave ample evidence that "music hath charms to soothe the savage breast" of worldly-wise gutter children—equally powerfully in producing the devotional mood and patriotic fervour. Dealing with the neglected waifs of the great American cities, Miss Mulligan found that musical instruction was so interesting to urchins and hobble-de-hoys alike, that it acted as the jam to the powder of arithmetic, as the gilt to the bitter pill of spelling; they came to sing and they swallowed the rest. There was no riot, no absentees, when music prevailed.

According to modern views, the great thing in teaching children is to get them in proper tune, in harmony with the teacher's aims, and the promotion of cheerfulness is decidedly the best way of attaining this end. Apparently, music-singing goes a long way to do this, and for this reason alone it is worth cultivation. When the headmaster of a Board School in a poor neighbourhood can say, "The children love their musical study so well, that the greatest punishment we can inflict is to deprive them of the few minutes of their music lesson," it will be seen what a great hold this has upon the small people. It is needless to stop and ask was the intellectual or emotional attraction most at work here? Suffice it for us that music is an educative medium, a co-ordinating force, an introduction at once to the hard facts of mathematics and the bright paths of imagination. With its help we can do much, whether we look merely to the stomach, the life blood, or to the brain. And if, in promoting the health of body and mind, we also train the voice to give forth, or the ear to appreciate, rich treasures of sweet harmony; surely we shall but gain the more for the individual and for the race.



## CHAPTER X.

### SUMMING UP

“For the pleasauntnesse of Musick there is no man that doth doubt, bycause it seemeth in some degree to be a medicine from heaven, against our sorowes upon earth.”

RICHARD MULCASTER.

“Music can noble hints impart,  
Engender fury, kindle love ;  
With unsuspected eloquence can move,  
And manage all the man with secret art.”

ADDISON.

AFTER impartially reviewing the foregoing evidence it seems to us that, whatever we may think of some of the claims advanced for the curative effects of music by certain professional enthusiasts, we must acknowledge that it possesses a powerful influence for good.

Music is, indeed, of immense use to man, if only as a source of harmless pleasure, when properly regulated. It will bring rest to the body and calmness to the mind, for, though, as old Burton says, “many men are melancholy by hearing music, it is a pleasing melancholy that it causeth, and therefore to

such as are discontent in woe, fear, sorrow, or dejected, it is a most present remedy. ; it expels cares, alters their grieved minds, and easeth in an instant." What more worthy and sweet a task, then, could be chosen by our sisters and cousins than this of becoming adepts in so grand an art ! And then, who can tell ? Perhaps there may chance a tender Clitiphon across her path, who, having heard her " play on the lute and sing a pretty song to it in commendation of a rose," will be enchanted, feel that his lovely Leucippe has " ravished his heart." And so the romance begins, and we discreetly draw the curtain as they retire to live happy for ever after.

Such is one phase of the social aspect of the subject. Of the scientific and medical side we have already spoken at some length. We may not believe everything that the enthusiastic musical pathologist advances, but that there is a good deal in his theory we may trust. Whether we are to attribute these virtues to the doctrine of spirituality of Beethoven and other honoured *Maestri*, or to the specific " tone ether " theory of Chomet, we rise from our task undecided. A third hypothesis remains, that " It is from the

mechanical and involuntary connection between the organs of hearing and the consonances excited in the outward air, joined to the rapid communication of the vibrations of this organ to the whole nervous system, that we owe the cure of spasmodic disorders and of fevers attended with delirium and convulsions, of which we have many examples.”\*

But if we are ready to accept the general premises, namely, the therapeutical and preservative potentialities of music, what need to wrangle over the occultisms of theorists? Enough for us that music has a decidedly practical value—directly as well as indirectly.

\* M. de Mairan, *Mem. de l'Acad. des Sci.*, Paris, 1737.

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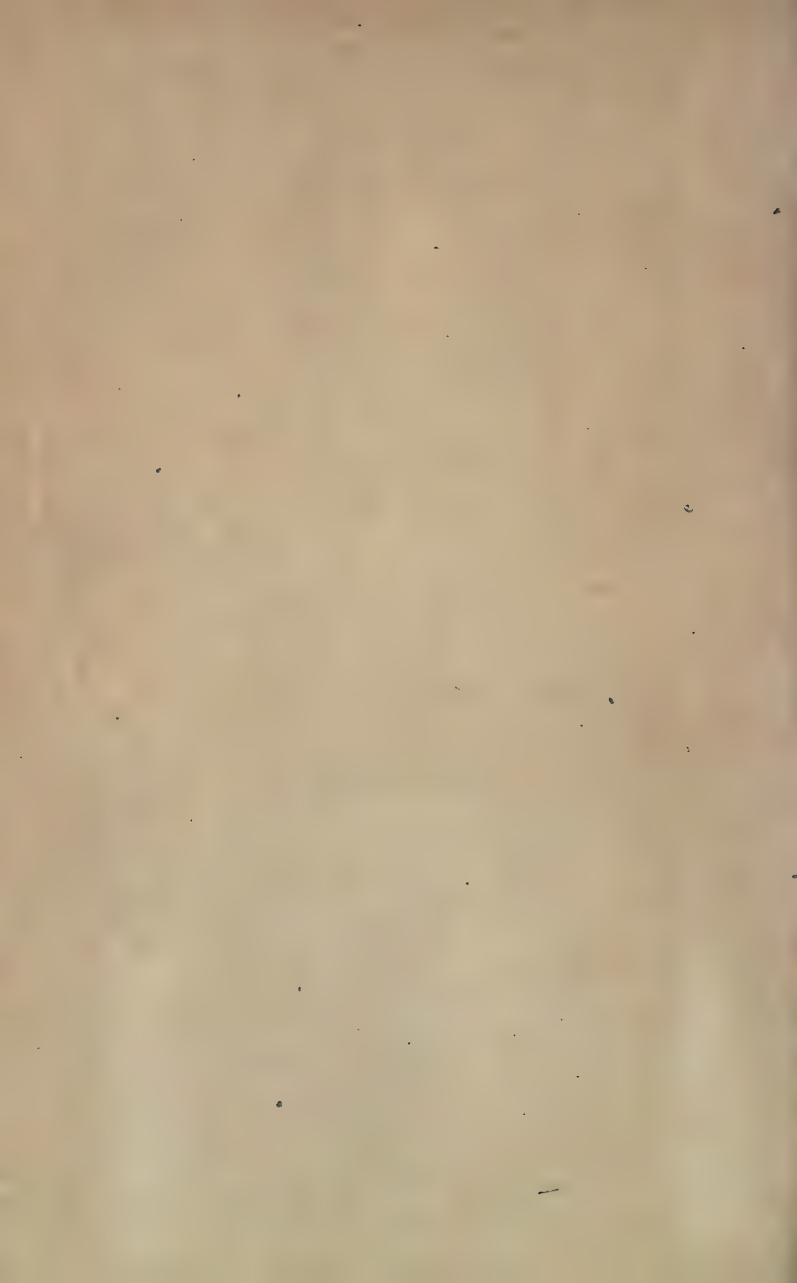
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